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CARNATIONS.



APRIL, 1886.

THE RECURRENCE of the planting time will bring to many a question they will find it difficult to answer satisfactorily to themselves: "How shall I plant my grounds?" In the hope of helping some to solve this question, a few thoughts are here offered, which are of a general nature, but capable of special adaptation. In the main they are intended for the residents of villages and small sized cities where the lots are from forty to eighty feet front, with a depth of one hundred and twenty-five to two hundred and fifty feet.

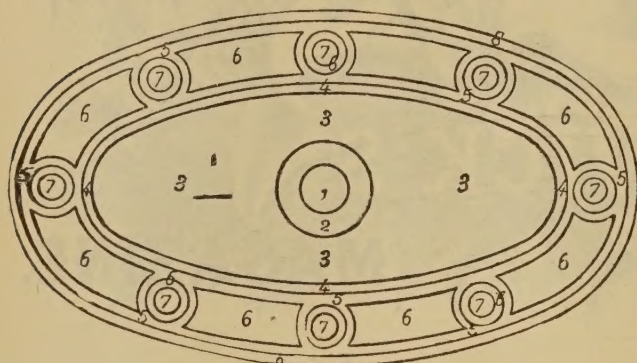
More or less of the space at the rear will be devoted to a vegetable garden and fruit. The sides and front of the house will be surrounded with lawn appropriately set with trees and shrubs and flowering plants. How much of the rear shall be set apart for vegetables will depend upon circumstances of which only the owner can best determine. Some localities are so regularly and well supplied with fresh vegetables that it is better to purchase most of them than to raise them, and in this case a larger part of the rear garden can be of an ornamental character. In all cases where there is room and it is possible to manage a good vegetable garden we should advise it, as there is a satisfaction derived from it that cannot be otherwise procured. Even on a small lot we advise, if it is possible, an

Asparagus bed large enough to supply the table with this vegetable. A few plants of Rhubarb will prove a great convenience. Space should be reserved for a dozen Tomato plants, as it is never possible to get this fruit as good in any other way as fresh from the vines. On the same space may be raised some early Lettuce. By all means, reserve a rod or two for strawberries, and some for Raspberries. All these are essentials, and by good management enough of them for a moderate family can be raised in a small space. On a small lot where economy of room is necessary, as here supposed, it would be unwise to plant the Black Cap Raspberry or any of its varieties—only the more delicate red sorts should be cultivated; the Black Cap varieties carry well, and can be delivered in good condition from a distance, but the red varieties, to be had in perfection, need to be taken directly from the garden to the table.

What fruit trees, if any, shall be planted will depend upon individual tastes. The fences that enclose the back grounds afford favorable opportunity for training Grape vines; these should be planted on every place. Even where fences, as a rule are not kept up, they usually enclose the back ground, and this should be so for comfort and convenience, as experience has proved. Vines trained

on these fences or upon trellises supported by them, occupy but little space and produce a great quantity of fruit, if well cared for. A border about four feet wide should surround the back garden next the fence, and running parallel with it there should be a walk about three feet

small places the largest-growing trees are not desirable, or, if employed, it should be with the view of removing them when they become too large, and thus injure by their shade the other occupants of the ground. It may serve as a guide in the arrangement of the trees

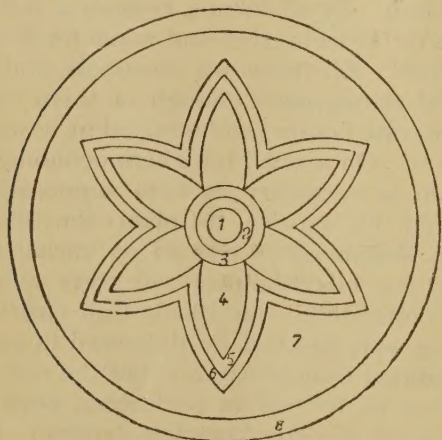


CARPET BED, FIGURE 1.

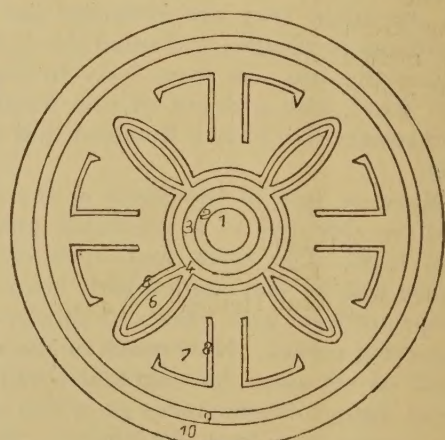
wide, narrower or wider as the circumstances admit. This border, besides being a suitable place to raise a supply of Lettuce and Radishes and a few other small vegetables, should be the home for the pot-herbs required in the kitchen. Here, too, can a variety of Liliaceous and other bulbous plants be raised, and the best herbaceous perennials can here have a permanent place. If there is yet

and shrubs to say that they should be set irregularly along the sides of the lawn, and bordering, to some extent, the front. Those varieties of trees should be employed that are conspicuous for their beauty of form or foliage, or both, and the flowering shrubs should be selected with reference to giving a continuous bloom from early spring to autumn. In full sight of the principal rooms of the dwelling and near the walks can be beds of showy foliage

plants and bright blooming flowers. The scarlet Geraniums are deservedly favorite plants for this purpose, and a few of the annuals serve equally as well, the principal of which are the Petunia, the Phlox Drummondii, and the Portulaca. Somewhat more expensive are the carpet beds, or mosaic beds, set with plants of high colored foliage. These beds, if well kept, make a fine appearance all through



CARPET BED, FIGURE 2.



CARPET BED, FIGURE 3.

room on this border, a portion can be used for annual flowers. It is only by having a good supply of the profuse blooming annuals and the best of the herbaceous flowering plants that the greatest enjoyment and satisfaction is to be obtained from the flower garden.

As already mentioned, the lawn surrounding the house should be appropriately planted with trees and shrubs. On

the summer and until destroyed by frost. They are popular because they produce just the effect desired—the garden appears bright and gay, and always at its best during the fine season of the year. One cannot depend upon them for flowers, and they are not for that purpose; provision for a supply of flowers should be made elsewhere, as already stated.

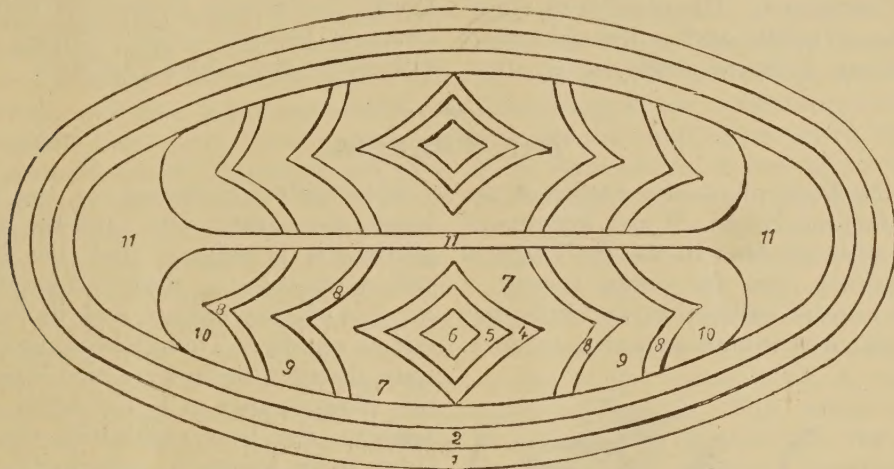
We here present a number of engrav-

ings of beds, which can be copied, if desired, or be considered as examples of a style from which one can deviate in numberless ways in the sizes and forms of beds and the plants used in filling them, but always subserving the laws of good taste and color-blending. The scale of measurement need not be strictly adhered to, for if increased or diminished a little the result will not be materially

ranthes Hoveyi; 5, *Pyrethrum aureum*; 6, *Achyranthes Verschaffeltii*; 7, *Lobelia compacta*; 8, *Alternanthera amabilis*.

FIGURE 2.—1, *Dracæna indivisa*; 2, *Centaurea gymnocarpa*; 3, *Coleus Verschaffeltii*; 4, *Pyrethrum aureum*; 5, *Achyranthes Emersoni*; 6, *Ageratum John Douglass*; 7, *Alternanthera aurea nana*; 8, *Gnaphalium lanatum*.

FIGURE 3.—1, *Agave* or *Yucca gloriosa*;



CARPET BED, FIGURE 4.

affected. Most of the plants in these beds can be set from eight to ten inches apart; *Alternantheras* should be about six inches apart. The large-growing bedding *Geraniums* may be set ten or twelve inches apart, but the smaller-growing *Silver-leaved* only eight inches; *Coleus*, *Achyranthes*, *Pyrethrum*, *Heliotrope*, &c., can be eight or ten inches apart. The numbers on each design refer to the following lists of plants to be used for filling them:

FIGURE 1.—1, *Dracæna indivisa*; 2, *Geranium Bijou*; 3, *Blue Heliotrope*; 4, *Achy-*

2, *Coleus Verschaffeltii*; 3, *Centaurea gymnocarpa*; 4, *Achyranthes Lindeni*; 5, *Centaurea gymnocarpa*; 6, *Pyrethrum aureum*; 7, *Alternanthera tricolor*; 8, *Echeveria retusa*; 9, *Echeveria retusa*; 10, *Alternanthera latifolia*.

FIGURE 4.—1, *Glaucium corniculatum*; 2, *Achyranthes Verschaffeltii*; 3, *Silver-leaved Geranium*; 4, *Achyranthes Verschaffeltii*; 5, *Silver-leaved Geranium*; 6, *Coleus Verschaffeltii*; 7, *Cineraria maritima*; 8, *Coleus Verschaffeltii*; 9, *Coleus tessellata*; 10, *Cineraria maritima*; 11, *Coleus Verschaffeltii*.

THE CARNATION.

As a winter-blooming plant the *Carnation* is almost indispensable; the beauty and fragrance of the flowers are unsurpassed, and their form is such that they are suitable as cut flowers and for all kinds of formal "flower-work." Plants are easily raised from seed, but the seedlings all differ from each other, some being far superior to the rest in the eyes of the florist, and when one of very superior attractions is obtained in this manner it is perpetuated by means of cuttings. Florists who raise the flowers for

sale depend for their crop entirely on such established varieties, planting the different colors in proportion to the known demands of their trade.

Young plants should be kept growing thriftily during summer, plunged in their pots or turned out into the open border. As flower buds appear they should be removed, or the plants can be sheared back, removing all buds and forcing them to make new and more numerous shoots. This operation should not be practiced after the middle of August, but then allow

the plants to grow and set their buds. Before cold weather sets in the plants are to be removed to frames or the house, and kept in a low temperature of 45° or 50°.

We have selected six kinds of the most desirable in our collection, and represent them in colors this month.

The center flower, Peter Henderson, named in honor of the well known seedsman of that name, is the largest of all the white Carnations. The plant is of vigorous, dwarf habit, and a free bloomer; each flower is borne singly on its stem,

making it a desirable variety for cutting. At the base of the group is a handsome dark flower, called Seawan, a very free and a strong healthy grower and early bloomer. Above and at the left of the last named is Miss Joliffe, an early blooming variety. The next above is Secretary Windom. It is a plant of neat habit, and the color is a clear scarlet; Duke of Orange is at the opposite corner. Below the last is the Century, a strong grower, an early and constant bloomer, color carmine, flower full, with a rich, clove fragrance.

THE FREESIA.

This bulbous plant is a native of the Cape of Good Hope. It was introduced into British gardens in the early part of this century, but for some reason it dropped out of cultivation, and little has been known of it until a short time since.



FREESIA REFRACTA ALBA.

For winter blooming in the greenhouse, the conservatory, and the window garden, it is evident that the Freesia will soon enjoy a deserved popularity, for it is of easy culture and its bulbs increase rapidly. Though botanists, at one time, thought there were two species of this plant, known as *F. Leichtlini* and *F. refracta*, the best authorities now consider them identical, referring to them both as *F. refracta*. The color is a light yellow, sometimes pale or even creamy, with an orange blotch on each of the lower divisions of the perianth.

The variety *alba* is a pure white, occasionally showing a few violet lines, and sometimes with the unopened bud suffused with a violet blush, and with an orange patch on the lower divisions of the flower. The flowers are beautiful in form, as may be seen by the engraving herewith, showing the plant reduced and a single flower of natural size. They are delightfully fragrant and quite lasting. The leaves are few and narrow, and from six to ten inches in length.

The plants are easily raised in pots, using a light, turfy soil, or a mixture of loam and leaf-mold. While growing they can be kept in a cool frame, or in a cool part of the greenhouse or window; give them what water they can use, but do not allow them to want it; do not force them by heat. After blooming they should have a warm temperature and a full exposure to the sun to ripen the bulbs, and these will keep best if allowed to remain during their resting season in the pots where they grew, giving them a dry place outside. Repot the bulbs in autumn, or when signs of growth appear, and remove the young bulbs.

In 1878 a variety called *alba*, of the species *refracta*, was exhibited in London before the Royal Horticultural Society, and the present renewed interest in the Freesia dates from that event. The plant is related, to the Irids, a family which, besides its typical genus, *Iris*, also comprises the *Gladiolus*, the *Crocus*, the *Tigridia*, and some others in cultivation.

CORRESPONDENCE.

FLOWERS FOR SPECIAL EFFECT.

Very often persons want a flower that will produce a particular effect, but don't know what that flower is. Suppose it is desired to have a bed on the lawn in some conspicuous spot. What is wanted is not so much individual beauty of flower as a solid, striking mass of color, in most instances. You want something which will show well, and give a brilliant effect as seen against the green of the sward. A large mass of scarlet Geraniums will give very satisfactory results, but I would prefer to use Calliopsis. This annual is a profuse bloomer, and its flowers of yellow combined with a most intense color which is brown in the shade and scarlet in the sun,—so deep and rich a scarlet as to have a suggestion of black in them—are well calculated to produce a fine effect. Look upon a bed of them when the morning sunshine strikes across them and you seem to see a mass of fiery butterflies, poised on slender stems.

I know of but few flowers having a richer, more velvety depth of color than the Calliopsis. One combination which will be found very effective is made by using blue perennial Larkspur in the center of a circular bed, with Calliopsis about it. The Larkspur's blue is very deep and intense, and the two colors harmonize well because of their intensity. A light blue and yellow would not be a very pleasing combination, but a dark, rich blue seen side by side with a yellow, shading into such deep tones as the Calliopsis has is striking and satisfactory.

For a prominent bed on the lawn, or for a hedge, or to conceal a fence, I know of nothing better than the beautiful double Hollyhock. These flowers have a wonderful richness of color. Last year I visited at a friend's where some pale lemon-yellow varieties were grouped with white and dark scarlet ones. Whether accidentally or not, I do not know, but there was in the group, one, and only one, of the so-called blacks. It was not really black, but it was so dark and intense in color as to seem so. The effect was pe-

culiar. The yellow, white, and scarlet made up a chord of color that delighted the eye, and the dark, rich hue of the other produced very nearly the same effect on it that the "diminished 7th" does in a chord in music, on the ear. To me, there has always seemed to be a close relationship between colors and sounds. They suggest the same thing to me, and produce the same effects upon my mind. If the same attention was given to color-study that is given to music, I believe it would be possible to write a symphony in flowers which the musician would understand as well as he does the one which depends upon sounds for its interpretation.

Another excellent flower for producing strong effects when used in masses, is *Salvia splendens*. This plant has the same intensity of color that the others I have spoken of possess. It grows rapidly, becomes a symmetrical, compact mass of foliage and branches, and bears its long spikes of vivid flowers well in air. I have seen it planted among clumps of white perennial Phlox with very satisfactory results. I remember a combination of it with wild white Clematis, or Virgin's Bower, that struck me as being most artistic. It was in a country garden where everything was planted in that hap-hazard fashion which often produces such pleasing effects. A plant of *Salvia* had been kept in the house through the winter. In spring it was turned out of its box, and planted in the corner of the fence. Some of the children had set a root of Clematis there. It sent up a dozen slender stems, and found no support for them near at hand, and as the *Salvia* happened to be the only thing within reach, they made up their minds to use it as a means of getting up in the world, and did so. The *Salvia* seemed determined to keep above them, but it had hard work to do it. They flung their branches about in such luxuriance that the plant was nearly hidden by them. When both came into bloom together the effect was charming. Out of a tangled mass of vines, covered with feathery white

flowers, rose the spikes of scarlet *Salvia*, brilliant as flame. An artist, or a poet, would have been delighted with the picture.

By a little study of colors, and the habits of plants, one can select such kinds as will give the effect we desire to produce, in most instances. It must be borne in mind that the successful gardener does

not go to work in a helter-skelter fashion to produce striking effects. Nor are they the result of "inspiration." He goes to work intelligently. He knows what he wants to do, and he knows, also, what he must do it with, and this he learns by observation. Study plants, if you would find out what can be done with them.

EBEN E. REXFORD, *Shiocton, Wis.*

EARLY SPRING FLOWERS.

On sunny side hills, in the shelter of Hemlock woods, grow the Hepaticas. They are variable in color, from white, which are rare, to various shades of blue, pink and lavender; several tints may be

est flowers, sometimes appearing before the *Arbutus* on sunny slopes with a southern exposure, while the northern side of the same slope will be covered in snow. It is gathered from Canada to

Georgia, and as far west as Wisconsin. It is one of the few wild flowers which can be placed in the fernery in the fall, and it will almost always blossom in the latter part of winter. I had them one winter at Christmas, a large cluster of delicate blue, varying to white. The fine hairs which cover all the stems give it a downy, soft look, that no drawing can do justice to.

At the same time that we are gathering *Arbutus* and *Hepaticas*, we find on sandy knolls the little white flower, which is called often the Wild Candytuft, which it does somewhat resemble. It is found throughout the United States, many of the family growing in little crevices in the rocks; the flowers are mostly white, once in a while tinged with faint pinkish-purple. The flowers begin to expand when the flower-stalk is an inch or more in height, and as the sweet-scented little clusters grow larger the flower-stalk lengthens, and at last it will be eight or ten inches in height, crowned with the faded brown flowers. This early species is called *Saxi-*



WILD FLOWERS—HEPATICA AND CLAYTONIA.

found on the same root, but they are commonly of a bluish tint; the leaves are evergreen. The plant is commonly called Liverwort, from the shape of its three-lobed leaves; it is one of the earli-

fraga Virginensis, or Rock Saxifrage, the name being formed from *saxum*, a rock, and *frangere*, to break. Here, in Massachusetts, it is the very earliest flower to open on the sunny hillsides, and

is closely followed by *Arbutus*, *Hepaticas*, yellow Crowfoot and blue *Houstonia*, the *Amelanchier* or Shad Blow, a shrub or small tree, some species of these last lingering till the *Violets* appear.

Growing in Oak and Pine woods, from Newfoundland to Kentucky, we find the wax-like, dainty May-flower, holding in its pearly chalice the sweetest fragrance of the spring time. It is a member of the Heath family, of which there are more than four hundred species, all of which are remarkable for handsome, generally fragrant flowers, of all shades of color,



TRAILING ARBUTUS.

varying from white to pink, red or purple, rarely yellow. Many of the species are valuable in medicine, and are mostly evergreen, many trailing in shrubby vines on the earth. Most of us know that the Blueberry, Huckleberry, Cranberry, Wintergreen, Laurel, Azalea, Prince's Pine, Indian Pipe and *Rhododendron* belong to this same order, *Ericacæa*.

Can we wonder at the delight of the Puritan maiden, when she found these earliest darlings of the late New England spring, looking with sad, yet brave eyes,

day by day, over the wide waste of water which separated her from childhood's home and girlhood's loving friends, who, even then, were gathering in many a green meadow the Primroses, in far off, "merrie England." The one link between her and that dear old home was the white-sailed vessel which, only a few weeks before, had gaily sped away from these dreary shores, homeward bound; and the little flower, lifting its pearly clusters to catch the sunshine was named, with the thought in her heart of the Maypole twined with Hawthorn buds and Cowslips and the merriment about it that she might not share, the Mayflower, a precious link between the old life of ease so care-free and happy, and the new life of sorrow, toil and hard privations.

Many a glorious spring time, with singing birds and opening buds, has since dawned upon the earth, and in each of their long, bright, sunny days have fair young girls gone forth into the "dim old woods," in quest of the flowers so dear to girlish hearts, to come home, in twilight may be, with hands filled with these nestlings of the Oak and Pine, thanking God in their hearts for the coming back again of the wild flowers "in the old familiar places."

Botanists call the flower *Epigaea repens*, or *Trailing Arbutus*, but we remember the staunch little vessel which brought to these shores the Puritan ancestors, of whom we are so proud, and in our hearts we keep the name, Mayflower.

FLORENCE J. W. BURNHAM.

FROM SAGE BRUSH TO FLOWER GARDEN.

I was lying off for a year from a work of many years in the ministry, and was living on my son's cattle ranch in the Blue Mountains of Oregon, four thousand feet above the level of the sea. To be serviceable myself, I took up a claim two miles above his, grubbed off and burned the Sage brush from four acres, and plowed the land for grain and a garden. But as for months I was to be alone, I wanted flowers for company, so, in front of my tent, and between it and my vegetable garden, I cleared off and fenced three rods square for flowers. I never planned for my enjoyment with more gratifying results.

The outward conditions were these:

A volcanic soil of most unpromising appearance, capable of growing Sage brush, *Artemisia tri-dentata*, to the height of seven feet; capable of raising Wheat, fifty bushels to the acre, Oats seventy-five, Potatoes four hundred, Champion Peas seven feet high and podded to the end, Onions of a pound and a quarter a piece, and all else in proportion, but would the gray, unpropitious soil raise flowers? Would it do for delicacy and bloom what it did for rankness of growth?

Then, the region was rainless; not three showers were to fall on the plants from birth to death, all must be done by irrigation. For this I had my beautiful, swift little mountain stream, a foot wide,

four inches deep, with which I had done wonders for my vegetable garden. Would it do the same for my flowers? And, added to all my fears was the fear of the cold nights in which frost might come during any week of the summer; it often comes every month. Would these children of warmth and sunshine abide the chill, or accommodate themselves to the harsh conditions of their new home? An Onion, a Parsnip, or the Peas, may smile a frost in the face. Will the Godetia, the Nolana, the Anagallis, the Eutoca, do the same? They did, and I blessed the gentle things which would not succumb to cold and leave me alone.

In front of my tent I laid out an alley, running down to my garden, bordered on both sides with beautiful bunches of native grass that had sprung up early. First came my Mignonette, for fragrance, with Sweet Peas on the right of the tent, and a bed of Four-o'clocks not far away. All summer long, in the damp, dewy morning, the sweetness hung on the air till far into the heat of the day, and even that could not stifle it. Then came Asters, Portulaca and Eschscholtzias, running to the end. I had bent down Willow rods, four feet long, to keep my bird dog and other dogs from running across. These all took root and made a border as fine as the grass. On one side I made a circle of six feet diameter for Petunia, and an oblong below it for Convolvulus minor and Eutoca, with connecting beds of Forget-me-not and Saponaria. Beyond this, and next the dull, gray Sage outside this, was a ribbon-bed with Godetia, Gilia, Stock, Calliopsis, Kaulfussia and Balsam.

On the other side of my alley was a large circle for Phlox, bordered with Brachycome; a diamond for Portulaca, bordered with Anagallis, joined by beds of Nigella, Asperula, Fenzlia and Enothera. Then a ribbon-bed of Balsam, Candytuft, Four-o'clock, Dianthus, Campanula, Molucca Balm. Then a circle with Antirrhinum, bordered with Saponaria; a square with Datura, bordered with Chænostoma, and an oval with Abronia. At the foot of all, and partially shaded by the fence, were my beds of Nemophila, Pansy and Daisy. And here and there Nycteria, Perilla and others.

And now my beds were made, the seeds were sown, it was the middle of

May; warm days, cool, even cold, nights. I watched for the appearance of my plants as they who dig for treasure. Very cold these nights, a frost on one of them, and then how glad I was that the plants were yet under the ground; but when the warmth returned, how anxious I was for their appearance. At last, in the last week of May, the Eschscholtzia began to appear, so familiar in the long past by-gone days, and, as if to assert its right to take the lead, here, at its home, on the Pacific slope. Whole meadows of them, in March, in California, FREMONT found in 1844, but here a few dear plants making the best of a mountain home. Then came Mignonette, and what I had not looked for in the chilliness, the Balsam. Then came either frost or the suspicion of one, the Balsam, of course, was black to the ground, was dead; the leaves of the Mignonette reddened, but did not die, but the Eschscholtzia stood bravely up and took no harm. It was now the first of June, the days and the nights became suddenly warm, and all my beds showed signs of life. Some of the flowers were not familiar to me in their first appearance, and their early forms were of great interest. The Petunia made its familiar start, the Portulaca asserted its kinship to the Purslane, the Phlox took a straggling start which made me fear for my bed as a bed, while in fact, it was to be fully covered by the beauteous bloom, the Eutoca and Molucca Balm took on vigor from the start and never lost it. The Candytuft was slow, but in the end was the hardiest of all and of great beauty. The Four-o'clock, Dianthus, Datura, Enothera were more sensitive in their beginning, but came to perfection in the end. The Snapdragon staggered all the way and attained only to a few blossoms in the very end of summer. The Godetia, Gilia, Nolana, Calliopsis, and Kaulfussia gained slowly, but still grew on till, by the first of July, all were in their glory, and the whole of the little space was a mass of bloom. The Asters, Pansies, and Daisies I reared in the house and transplanted, they took their hold at once, and their marked place among the rest in their several richness, modesty and beauty, and I was to have, after all, a benignant season; no frost for three months, not even the traditional and cus-

tomary one in that region, on the night of the Fourth of July. I was alone with my gentle bird dog, but I was in company with my flowers. The plants became ranker, the bloom more profuse and brilliant, and I do not think I was in error in feeling that the soil which was of such wonderful fertility gave also a richer coloring. The Phlox fairly blazed as the sun, day after day, at 90° in the shade, poured down his fiery but welcome warmth, while the Portulaca approved itself as a very child of the sun. The Brachycome, its hold once gained, was as gentle and profuse as in its far away Australian home, and the Anagallis fairly breasted the Portulaca in its true Purslane spread to choke everything else, and actually lifted it into the air. I was pleased at this, for one was a border only, the other a bed, and I was unwilling that the border should be invaded and crowded out. The Eutoca bloomed early and bloomed to the last. The *Oenothera*, with its strange, weird way of unfolding at sunset, before your eyes, was of three colors, yellow, pink and white, and singularly enough, two of these colors would appear one evening, one the next; so all summer. The *Datura* was slow in perfecting, but, at last, attained its long, upright, tubular flowers, and, one morning, going out, I found a number filled to the brim by an unwonted shower in the night.

As to the irrigation. Along the edges of the ribbon-beds and around and through the larger beds, I made little trenches, say an inch deep and two inches wide, with the corner of my hoe. The grade of the ground was so slight and perfect that I had nothing more to do than to run the little trenches and let the water in. This I did by damming the little stream, turning its course across the head of my ground, and drawing it out into the irrigating trenches. As these ran to the south from my tent, the effect in the bright sunshine was very striking. For my flowers and my garden it took forty streams, and for four hours of the middle of the day they were literally like bands of silver. The contrast with the flowers of so many hues was beautiful, and I could sit under my awning and say with KEATS, over the bright scene before me, "A thing of beauty is a joy forever!" If the last term hardly applied to the

fragile and short-lived creatures before me, yet it was only inapplicable, comparatively, with my own mortal existence and that of the earth on which I stood, for,

" the great globe, itself,
Yea, all which it inherit, shall dissolve,
And, like the insubstantial pageant, faded,
Leave not a rack behind."

Whether it be the flowers or ourselves,

"*Solvat sæculum in favilla*,"

is written upon all. I had my reward, also, in the pleasure of others, lovers of flowers. The women and girls of the valley came for eight and ten miles, on horseback and in wagons, to see the strange and handsome flowers, and were delighted to take large bouquets of the finest away. They would wind around in the little walks, and feast their eyes on the new forms of bloom. The poppy-like delicacy of the *Godetia*, the lowly beauty of the *Nolana* and the *Convolvulus minor*, the generous variety and profusion of the *Petunias*, the peculiar grace and penciling of the *Asters*, the brilliancy of the Phlox, the almost freakish variety of the mass of Portulaca, the delicacy of the Swan River Daisy, the *Fenzlia* and *Nemophila*, the deep, rich blue of the Eutoca, and, finally, the wonder to them of all, the bed of King of the Blacks,—a black flower they had never seen before—they would spend hours in walking about and gazing, and were frequent in the remark that they fairly grudged all this beauty to one person, and he only a man! All the same, the man was well pleased, and the better pleased that he could divide the flowers and the pleasure with them.

One bright girl stood by the bed of *Nigella Damascena*. "Mr. COOKE, what is that?" "Love-in-a-mist, and when you see that flower on any one, you may know it is my best girl." She started off on a search, and came back. "Why, I found the flower on three girls!" I put a couple in her own bouquet, and said, "That's just it; they are all my best girls."

I was interested in noticing how entirely taste, as to color and blending, is a gift of nature, is born in one, not made. This same girl and her sister were selecting flowers to take home. The sister chose a large double handful at random. The other went from bed to bed, from one side of the garden to the other, and

arranged a bouquet that would have found ready sale from a conservatory. I was delighted, for the unstudied, yet perfect, arrangement gave a new beauty to the flowers themselves.

I have made a long story of my flowers. I am little skilled as a florist, and many a fair reader of the MAGAZINE will smile at my simplicity and wonder why I left out some kinds; but I was limited as to time, for I was only to be there one year, so I could only choose annuals, as to space for it was all the ground I had time or strength for, as to varieties for I could only choose the hardiest, and none of these but the *Eschscholtzia* could ripen their seed, for the cold nights and early frosts. But I will venture that Eastern Oregon has not before seen thirty-five of VICK'S finest annuals in bloom on one spot, and I have not seen it myself, here in Iowa. It was a great pleasure to find the finest the hardiest, notably the *Petunia*, *Aster*, *Phlox*, *Godetia*, *Nigella*, *Eutoca*, *Nemophila* and *Candytuft*. The white *Phlox* and white *Candytuft* were

the last of all to succumb to the frost, while the *Balsam*, *Antirrhinum* and *Perilla* went in a single night. They would not flower for that region. A fine large *Perilla* I was grudging to the first frost, but, one day, a ranchman and his wife came eight miles for that *Perilla*. The frost came that very night; but two months after I saw my *Perilla* doubled in size, and after its own queer fashion in full flower in their bay window.

It will not be at all strange if Mr. VICK has more orders for flower seeds from the Burnt River Valley, of Oregon, this spring, than he ever had before. One young man said, "Mr. COOKE, we always had to visit the girls to see them; but you can sit at your tent and the girls come to you in wagon loads." "Oh," I said, "you must cultivate flowers." He said, "I'll have an acre of them, next spring."

Such was a lone minister's experiment with flowers in the Sage Brush of the Blue Mountains of Oregon.

REV. JOSHUA COOKE.

TURNIP-ROOTED CELERY.

The Celeriac or Turnip-rooted Celery is a vegetable that as yet is grown only to a limited extent, and it is not likely that it will ever come into general cultivation. But as it is occasionally found in some amateurs' gardens it may be that there are others who are desirous of giving it a trial, so, for their benefit, I desire to give a few hints in reference to its cultivation.

Its foliage is like that of the well known common Celery, but it differs in being Turnip-shaped, and these are by some considered excellent when cooked, while others prefer them sliced and used with vinegar. Then by many they are used for seasoning meats. They also enter largely into the composition of soups as they are of a sweeter taste, and much stronger than the common Celery. It can be grown in the same manner, and requires nearly the same treatment as the common Celery, but as it requires only a very slight earthing up it should be planted on the surface. It can also be planted much closer, or in rows two and a half feet apart, the plants being six inches apart in the row.

The seed should be sown thin in rows,

six inches apart, on a nicely prepared border early in the spring, and the young plants should be well cultivated so as to keep them clean and free from weeds until they are from four to five inches in height, when they should be transplanted into the rows where they are to finish their growth. The soil should be worked deep and be enriched by incorporating with it a good supply of well decayed stable manure. Transplanting should be done just before or after rain, care being taken to firm the soil well around the roots of the plants.

The growing crop should be well cultivated, and on the approach of cold weather, be taken up and stored in shallow trenches about ten inches wide, and depth exactly the height of the Celery. In this trench the plants should be placed closely together, and a shutter laid over them in such a position as to shed the rain, and on the approach of cold weather further protection be given by means of a covering of straw or leaves. This covering should be applied very gradually, but in such a manner as to keep out frost. Where only a few hundred roots are grown they may be stored in narrow

boxes, about nine or ten inches wide, and of a depth a little less than the height of the Celeriac. A few inches of sand should be placed in the box, and on this the roots of the plants should be placed

closely together, but avoid mutilating or injuring them. Then the boxes can be set in a dry, cool, but frost-proof, cellar until wanted for use.

CHAS. E. PARNELL, *Queens, N. Y.*

NATIVE FERNS.

There are many wild plants desirable in every respect for garden culture. Among the first which the collector will be tempted to introduce will certainly be the Ferns. One or two of these, perhaps, among other plants in a garden may seem out of place, and for want of proper treatment prove very unsatisfactory. Still, it does not follow that Ferns should always be grown by themselves. If a shady corner can be devoted to their culture, and the necessary amount of water supplied, Mosses, and some of the smaller flowering plants might grow among them

to cover the soil and keep up that moisture of the air so needful for their perfect growth. No ill-used plant is more pitiable than a parched and stunted Fern. Arrange your Ferns so that each will show to the best advantage, and do not crowd them. The larger growing kinds need room to expand their graceful foliage, and a few stately plants well grown will be better than a large number with fronds narrowed and distorted for want of room.

The nature of the soil and the amount of shade and moisture you can give them will, of course, influence your choice of species. In this, an acquaintance with Ferns in

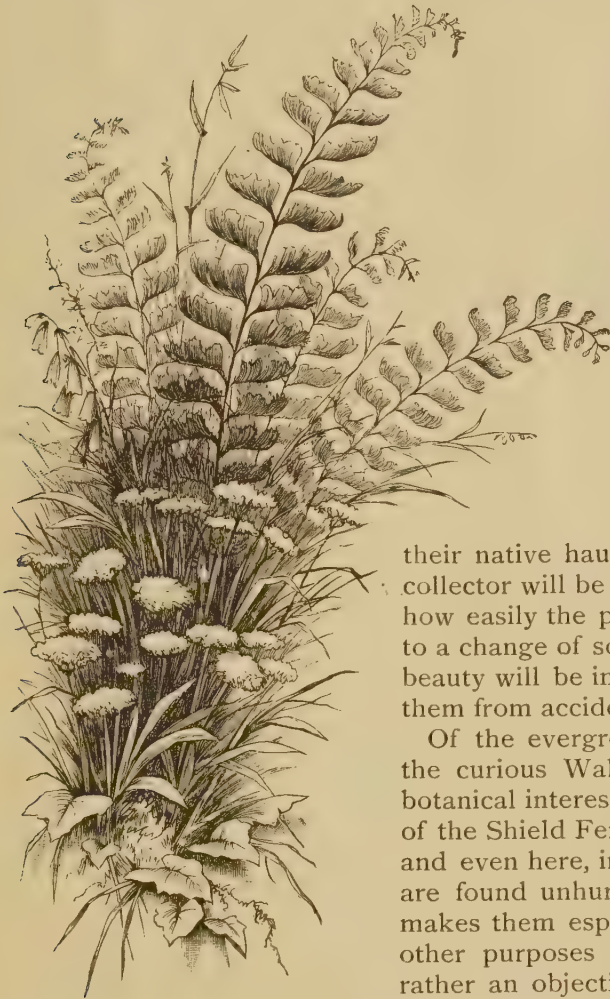
their native haunts will be the best guide; yet, the collector will be surprised, in some instances, to find how easily the plants will accommodate themselves to a change of soil and surroundings, and how their beauty will be increased by the care which protects them from accidental injuries.

Of the evergreen Ferns, the Hart's Tongue and the curious Walking-leaf will be planted for their botanical interest rather than for their beauty. Some of the Shield Ferns and Spleenworts are evergreens, and even here, in Canada, their bright green fronds are found unhurt when the snow disappears. This makes them especially valuable for rockeries. For other purposes their evergreen character may be rather an objection, as the uncoiling fronds of the

young growth in the non-evergreen species are all the more beautiful for being seen alone.

Among the best of our native Ferns is the Maidenhair. Grown in pots for parlor decoration, no exotic can exceed it in beauty, its only fault being that it needs a season of rest. It is equally desirable for out-door cultivation, and can be grown in masses by itself or in detached clumps, in contrast with stiff and stately Shield Ferns, such as Goldie's Fern and the Male Fern. These all need a rich, open soil, with ample room and plenty of shade and moisture.

Another handsome Fern requiring the same treatment, is Braun's Soft-prickly Shield Fern. Like the two last mentioned, it grows in the form of a circle or



crown. The shape of the upright fronds is particularly graceful, and the golden-brown color of the main stalks is also a conspicuous feature.

The bulb-bearing *Cystopteris* should be mentioned here as delighting in the same situation. It is remarkable for its slender and graceful form, and for the little bulbs on the back of the frond, from which it takes its name. Unlike most Ferns, it is none the worse for being closely planted, so as even to hide the Moss in which it grows. It is hard to describe the exquisite beauty of this little



Fern in its native woods. Looking down upon it where it grows, in the deep shade of deciduous trees, the dull green color and the confusion of shape in the interlacing fronds, make it look soft as a bank of feathers, and as you watch it there seems to be subtle changes in depth of color, like the uncertain movements of Northern lights. When you stoop to gather a few of its fronds, you will find it difficult to choose among them, and will probably destroy more than you take; yet, if you have to pass

the spot you will go a long way around rather than crush the frail things by walking through them. This was, I believe, the first North American Fern thought worthy of cultivation in Europe. It needs protection from the wind as well as from the sun.

For drier situations the Beech Fern and the delicate and graceful Oak Fern would claim first notice, but they are rather difficult to manage. The Hay-scented Fern, or *Dicksonia*, will bear almost any treatment. The light, feathery fronds take delicate shades of pale green and brown in the autumn, and its pleasant scent is not the least of its recommendations. It is very abundant here in dry pastures and open woods. The perfume seems to attract insects, but I never could find that it is injured by them.

In the wettest place that you can give it, the Royal Fern will grow. It, and the other Flowering Ferns, will beautify an unsightly swamp, or the margin of a slow stream, and make the spot worth visiting. Of other Ferns which grow in swamps, the Chain Fern and the New York Shield Fern are worthy of mention; but the most showy, on account of its large size and elegant form, is the Ostrich Fern. In favorable situations it reaches the height of five or six feet. Growing in large, circular tufts, the curving outer fronds form an enclosure or cup, within which rise the curious fertile fronds, very different in shape, which must have suggested the name of the species.

Beside the evergreen sorts above mentioned, there are many other native Ferns suitable for rockwork. A collector could not do better than to visit a rocky woodland, and take them up at random. All are interesting and none of them devoid of beauty.

J. V., *St. Stephen, N. B.*

TO THE DANDELION.

Clear-eyed, golden Dandelion,
Starring all the grass,
Springing almost underneath
The feet of those who pass;

Large and round and bright and cheery,
You my soul delight,
For in meadow, field or woodland,
You are ever bright.

Come, O, earth's bright yellow starling,
Grace the day for me,
Give a happy hour to him
Who sees God in thee.

God to me is nature's essence,
Every where around—
In the air, the sky, the flower,
He is to be found.

LADY GARDENING.

One must admire the easy, off-hand way in which feminine writers on women's work dispose of the difficulties in gardening. We who have been brought up on garden borders connect the idea of not a little work with their delights, and I seem to have lively recollections of long forenoons, from four o'clock till eleven, spent in transplanting and cultivating, with sessions from five in the afternoon till it was too dark to tell Pinks from "Pusley," carrying the water-pot among newly set plants, before the hose and force-pump ended such effort. I won't say anything of getting up at one o'clock at night to cover cherished plants when the wind went down for frost, or of setting out choice things by lantern light that they might not have the check of a single night out of soil, for it pleased me afterward to read how WILLIAM PITT and more than one famous tree-grower transplanted Oaks and Chestnuts by torch-light to spare the rootlets of their nursling trees from dying in the air, and finish the day's work on their great plantations. One and all, great folk and small, when seized with the same delight of gardening and cultivating, heed neither fatigue nor weather, midnight nor noonday till their object is accomplished. Whether it is a garden or a grand forest planting, a flower bed or a window-full of plants, it is all the more precious for the labor and watching wrought with it, but I think no one who has accomplished any result at these things will ever pretend that it was not the reward of labor, and plenty of it.

But how foolish it all was! The new manuals of occupation for women have an excellent trick of presenting a career with all difficulties smoothed out of the way. They treat of woman's work with the work left out. A popular handbook on money-making for ladies, among other things, recommends gardening as eminently suitable and profitable for a woman, with the recommendation that she hire a boy to do the work. The plowing and spading, hot-bed making and transplanting, marketing and cellaring are all to be done by a marvelously trusty and capable youth, who works for wages which do not eat up every cent of profit that can be raised or scraped from these garden beds. If that species of youth is common where those chapters were

written, some of us will know where to send very speedily for help. Only I'm afraid there are no post-offices where such paragons reside.

The other day, a weekly paper had one of these utterly girly, hyper-refined, impossible stories, which aim to encourage independent efforts by women. An exquisitely improbable young woman, of consummate hauteur, cultivation, grace, breeding, fortune, and that sort of "novelty," one fair day loses her millions and takes a whim to turn florist instead of marrying the high old party with twice the money, who kindly steps in in hopes to get her at a bargain. She is penniless, as it goes in stories, but she is still able to run up a row of greenhouses at once, and stock them in a way which can't have taken less than \$5,000 capital. She doesn't know a thing about greenhouses, plants, or business, either, but in the right instant offers a head gardener, of unfailing cleverness, experience and absolute disinterestedness, who runs the whole business, taking all care off her hands, for \$30 a month, which Miss —, used to paying the very highest prices to half a dozen gardeners and new servants, finds fabulously low. Between what he knows and she don't know, they make something like \$10,000 a year clear profit, in which genteel poverty she manages to exist without detriment to her dainty tastes, or wearing anything less than ancestral thread lace on her wash dresses. It is not to be thought, however, that she does not take an active part in earning her own income, for she is seductively portrayed in the freshest crispest of ruffled lawn frocks, with thread lace at the throat and wrists, of course, and a Rose in her belt, devotedly essaying the roughest of real work, and actually steadying a plant, while the handsome, educated foreman sets it out. This must be conceded genuine, self-sacrificing labor. And when she lifts her slender, shell-like fingers to find a streak of grime on one of them, we feel that she has flung defiance at all her aristocratic antecedents and precedents. But when the handsome foreman turns out a young man of fortune, with family old as her own, who masquerades over the wheelbarrows and compost heaps for love of her, we feel that almost any young woman would be

equal to sacrificing herself to this amount. And this is supposed to be a picture of women's experience in horticulture.

The kind of gardening which women hire a man to do for them is not likely to prove any more profitable to health or pocket than men find it. Gardening at second hand is pretty expensive business in this part of the country, though it succeeds so well in story-land when the moon is always at the full. Those of us women who have tried it, find as much prose as Peaches about it. The man who works for a woman always wants the highest price and does the least work for it. Witness the experienced English gardener, who for one-half day's work, last fall, spaded fifty feet of border one spit deep and wide, dug and planted two Raspberry bushes, wheeled one barrow of stones one hundred feet, and carried six flats of Strawberry plants some sixty feet for me after I had lifted them, working for \$1.75 a day. I didn't mind paying him so much, but it tired me to see him around, for I certainly could do more any day I ever was out of doors, and told him so. The meekness with which he received this injurious speech, the high and Christian spirit with which he accepted the shillings he had half-earned left me, of course, feeling very much at a disadvantage. Then, the farmers always profess ignorance on any point where you want advice, and go off laughing over woman's inexperience — "they're not going to give themselves away, and let her get the start of 'em. If she wants to know, let her find out." She does find out by long study of dozens of farming books, and keeping her eyes very alert on horticultural occasions. She learns to tell a water shoot from a fruit spur, learns that it won't do to dig over an Asparagus bed in spring as if it were for Potatoes, or to weed and cultivate Strawberry plats in bloom, if you want any berries that year. Far be it from me to say that there are not kindly, open-hearted farmers, who will do anything short of stopping a day's plowing to help a neighbor, especially a woman trying to do something for herself. But they are uncommon enough to make one thoroughly grateful for the teaching. No womanly woman wants to ask for advantage when she enters a calling open to the sexes equally, and the novelty

once past of seeing women at florists' trade auctions, or in the market, men are disposed to put the equality in practice as well as the theory, which they can hardly do too soon to suit all round, for it seems difficult for some men to understand that a woman of any age can be really and deeply bent on pruning, and making her orchard yield, or in raising garden crops, enough to interest herself in commercial fertilizers and to learn all about soils, manures and implements unfeignedly, as if she wore knee boots instead of shoes. The best men understand this and are generous teachers. Can one ever forget the days spent in company of Dr. JOHN A. WARDER, primate of horticulturists and men, while he spoke of plants and their culture with the knowledge of a culturist and the taste of a most refined nature, with unfailing courtesy, but without compliment, as if his rapt listener were a sophomore instead of a young woman. The interest in horticulture fostered then carries with it vivid impressions of the eminent sincerity, the unspeakable truth and kindness of the teacher. General HORACE CAPRON, former commissioner of agriculture, was another man who framed manners upon old school courtesy, who could understand that a woman was capable of as keen interest in crops and thrift as any other creature of intelligence, and could talk to her by the hour on his favorite text to farmers of "not putting all their eggs in one basket," with that perfect tact which never forgets when a woman is a listener, but never reminds her of it. But when it comes to asking a common florist at a flower show, amateur questions about his Orchids or Carnations, ten to one he will construe it that you are merely a forward woman, and sooner than that, you know, you would perish for want of information. I do think people, that is, women, might be allowed to ask questions at flower shows without being impertinent, or scaring modest Scotch-Irish gardeners. Most people, it is true, go to shows to look, but some few go also to learn, and it's hard they can't have the chance. Never mind, PENELOPE, we can hold our tongues, like the sphynx, and make up for it by using our eyes, and working up stray knowledge, till other folks want to come and ask us questions.

Gardening for women is no fancy work. It is not the business one can enter without experience and have somebody else do the work, and make money at it. That sort of business is yet to be invented. Gardening for profit requires all there is of a man or woman, brains, body and spirit. Beyond all other business, it demands that one must be up to time, or a crop, whether of Roses or Celery, is lost, or the best of the market gone. You will have to get up cold nights to see to greenhouse and furnace. You will have to watch, one eye on the calendar, the other on the weather, from February to May, and then sit up for late frosts, and hunt striped bugs in the mornings. You may hire all the help you want, but the

fag-end of all the work will be carefully saved for you, and you must find the intelligence for all. In fact, gardening is one thing that no lazy or light-minded woman will ever be tempted to undertake, if she knows it. But no work is sweeter, or pays better, not in money so much as in health, good spirits and content. I think, sometimes, the curse has been worked out since creation, and toil is blessed henceforth. If I were to pick out days of my life that have been most peculiarly worth living, they would be those when I wrought among Roses and Raspberries from dawn to sunset, without stopping save for meals. Over them I can write "Abiding Satisfaction."

SUSAN POWER.

SAVANNAS OF NORTH CAROLINA.

To the man or woman capable of appreciating the beauties of the wild garden, the savannas of eastern North Carolina are among the most interesting and delightful of places. In spring time, these flat, boggy wastes, which in the west would be called prairies, form vast natural flower gardens, planted with lavish hand and unsurpassed skill by the greatest of all landscape artists. Here we find in incredible quantities elegant Magnolias of several species, Loblolly Bays and Stuartias, both allied to the Camellia; Azaleas, Honeysuckles, *Itea Virginica*, and a hundred other flowering shrubs brighten the waste and scent the air with their fragrance. Sabbatias, Polygalas and Orchids of strange shapes greet the eye upon every side, while in the brooks and pools we find abundance of the sweet-scented white Water Lily, *Nymphæa odorata*, and also the rare *N. tuberosa*, as well as *Nelumbium luteum*, a species of the fabled Lotus of the Nile, the rare arrow-leaved yellow Water Lily, *Nuphar sagittifolia*, vulgarly called Alligator's Bonnets, and the elegant, glossy-leaved Spoon-Flower, *Xanthosoma sagittifolia*. The Duck-weeds, too, *Limnathemum lacunosum* and *L. trachysper-*

mum, and with them the Water Shield, *Brasenia peltata*, and its relative *Cabomba Caroliniana*. The Pipeworts are represented by *Eriocaulons* of several species. The fish-trapping Bladderworts are represented by no less than nine species, while to keep them in countenance in their un-vegetable diet, we have the insect-eating Pitcher Plants of four species, a large number of Sundews, and last, but not least, the far-famed Venus' Fly-trap, *Dionæa muscipula*.

At this season, Violets, of course, abound and we have no less than sixteen different species of these; of the Iris, or Blue Flag, we have seven species. Grasses and Sedges of all species abound, but these are chiefly interesting to scientific botanists; I will not particularize them. This sketch would, of course, be incomplete without referring to our evergreen Oaks, the all-pervading Bald Cypress and its attending parasite, the Long Moss, and the Southern Pine, with its needles fifteen inches long.

At another time I may give a more particular account of the insect-eating Pitcher Plants and Venus' Fly-trap, an ye editor willeth.

GERALD MCCARTHY.

[Ye editor willeth.]



FOREIGN NOTES.

FREESIA REFRACTA ALBA.

For winter-flowering this *Freesia* promises to be of very great value when its requirements become properly understood. But this must not be understood as implying that it is in any way particular in its wants or difficult to manage. On the contrary, I look upon it as being very easy to cultivate in every way; but, as a matter of course, it requires more heat than an ordinary greenhouse affords to have it in flower at mid-winter.

The batch of bulbs we have now (January 20th) in flower were in the same condition last April. Soon after they went out of flower the leaves faded, and we dried them off, and in fact, had forgotten them. In the hurry of work they were stood on the floor of the peach-house, where, no doubt, they obtained moisture sometimes from the engine used to wash the peach trees. Be this as it may, in July I found they had commenced to grow again. I had them shaken out of the soil, and the bulbs sorted into two sizes. The largest was then put in six-inch pots, twelve in each, and when potted they were taken to a low span-roof house in which we keep a temperature of about 55° during the winter. In this structure they remained until they came into flower, about the date above mentioned, and very few winter-flowering plants have given us less trouble. As regards soil, they had only an ordinary mixture of loam and leaf-mould and some sand, and they had water when required. But they were near the glass, and had a rather liberal circulation of air when the weather was favorable. On examining the plants I find that every bulb grew and produced flowers. On some of the stems there are three heads of flowers, and some heads contain from nine to ten individual blooms. Most of them have seven or eight. Altogether, I am immensely pleased with the plant, for there is something so light and elegant about its growth, and the delightful fragrance is not the least of its merits, for one of our plants is enough to thoroughly scent a room.

I am quite satisfied that this *Freesia* does not want a long season of rest, like other bulbous plants, and if properly treated I believe the same bulbs may be had in flower at the end of every eight months. Not the least striking characteristic is the rapidity with which the bulbs increase. Two years ago we began with a dozen, and now we have at least six times that number in different sizes. It is right I should mention that the growth attains a greater height when grown in a warm house during the winter than when kept in a cooler temperature. The specimens now in flower with us are about fifteen inches high; generally when grown in a cool house they do not exceed eight inches.

J. McDONALD, in *Gardeners' Magazine*.

HARDY FLOWERS FOR CUTTING.

From an article on this subject in *The Garden*, we take the following:

The Snowdrops are a host in themselves, and then come the very large family of Narcissus, or Daffodils. If we are looking back among the pleasant scenes of the past, which are hidden away in the memory, it is not the grand conservatory we think of, or the magnificent Orchids that the mind loves to linger over. No; it is that old orchard full of Daffodils, clustering under the Apple trees and in the hedges, or that old-fashioned garden so full of Snowdrops, and where the scent of Violets, white Pinks, Musk, and Mignonette fills the air in their respective seasons.

With the summer came many things suitable for cutting—the Columbines, all the Dianthus family, the Carnation, Picotee, Pink and Sweet William, the Canterbury Bells, Delphiniums, Pyrethrums, single and double, and Roses in endless variety. In special situations Pæonies and Poppies are useful; where show rather than sweetness is demanded, they are excellent. For large vases in the corridor or hall they are valuable. All the Iris family are excellent for cutting; they are not so lasting as many things, but fresh flowers are opening

daily, and the effect is gorgeous. Ever-lasting Peas, though not so nice as Sweet Peas, yet they are very showy. How beautiful the old white *Lilium candidum* is in very large, tall glasses or vases. All the *Spiræas* and the perennial Sunflowers are good for cutting. The Phloxes are bright and showy, but do not last so long as a good cutting flower should. The same may be said of the Pentstemons and Veronicas, but the Rudbeckias and the Asters or Starworts are very valuable in autumn. The Japanese Anemones, though good for cutting, are hardly lasting enough. Foxgloves, though not generally used in a cut state, associate well with the Poppies and other things for large bold groups.

In looking back over what I have written I find I have only just touched the fringe or border of the subject. There are vast numbers of plants among the hardy border flowers suitable for filling a vase or working into a bouquet. And then in the summer and autumn the hardy annuals alone will yield an immense supply more beautiful and elegant than the majority of the hothouse flowers. But one of the great advantages of hardy flowers for cutting is their length of stalk. The summer flowering exotics are for the most part dumpy and dwarf if we except the Dahlia, but from the hardy things, or at least many of them, large spikes and racemes may be cut without the feeling that we may be inflicting injury on the plants. The Grasses are indispensable in any arrangement of cut flowers; they impart a lightness and grace that cannot be obtained from any other plants. The annual Grasses are some of them, such as *Agrostis nebulosa*, *Briza compacta*, *Bromus brizæformis*, *Eragrostis elegans*,

Lagurus ovatus, *Pennisetum longistylum* and *Hordeum jubatum*, very useful and easily cultivated.

THE CINERARIA.

A writer in the *Gardeners' Chronicle* says:

I have taken to grow this class of plants to a much larger extent than heretofore. They have been so much improved of late years, that a most brilliant display can be made with them from Christmas to the end of April, or even longer, and they can even be had well in flower a month earlier. I clear out the Chrysanthemums from the greenhouse, and fill it with Cinerarias, so that a plentiful supply of plants can be obtained for the conservatory or house decoration during these months. They are very easily grown if they can be kept free from green fly. My plants are in all stages of development (February); some are in full flower, while others are being shifted into their flowering-pots, a process which may be performed in any stage of their growth. Plants intended for exhibition, say in April, should now be in their flowering-pots. Eight-inch pots will do very well for large specimens. I have a few scores of large specimens in eight-inch pots, and the growths are now being trained out; this is necessary to admit light to the center. When the large outer leaves are too much crowded together a few of them may be removed to allow the full development of the others; any specially good varieties may be raised nearer the glass than the general run of ordinary stock. Mildew is at this season sometimes quite as troublesome as green fly, but if destroyed in their earliest stages no harm is done to the plants.



PLEASANT GOSSIP.

HOME RULE.

The farmer sat in his old arm chair,
Rosy and fair.
"Kate, I declare,"
He said to his wife, who was knitting near,
"We need not fear
The hard times here,
Though the leaf of life is yellow and sere.

"I am the king, thou art the queen
Of this fair scene;
Our love is green
As when thou wert a village maid,
And I, a blade,
In love,—afraid
My fondest hopes would be delayed.

"Now, whether the days be dim or fine,
In rain and shine,
Here, thine and mine,
Are cattle, grazing upon the hill,
Taking their fill,
And sheep so still,
Like many ruled by a single will.

"These barn-yard fowls, our subjects all,
They heed the call,
Both great and small
When we scatter for them the grain.
'Tis not in vain
We live and reign,
In this our happy, fair domain.

"Unvexed with shifting stocks and shares,
And bulls and bears,
And the affairs
Of speculation in mart and street,
In this retreat
Sweet Peace can meet
Plenty that's crowned with braided Wheat."

GEORGE W. BUNGAY.

WINTER BLOOMING PLANTS.

Please inform me how to treat the Cyclamen, Fuchsia and Geranium to make them bloom. They have had water plenty, and a warm room, large pots, and sun all the afternoon.

MRS. J. C. P., *South Scituate, R. I.*

The high temperature, plenty of water and large pots, are the right conditions to induce continued growth of the plants named, and to prevent the Cyclamen and the Geranium from blooming. For the Fuchsia this treatment may have been no detriment, and the latter part of spring and early summer it will probably be blooming satisfactorily. The treatment of the Cyclamen and the Geranium—Zonal Pelargonium—has been given so fully in our pages that our older readers

are well informed in regard to it, but for the benefit of the inquirer and new readers we will say in brief that the Cyclamen and the Geranium, intended for winter flowers, should be in blooming condition on the arrival of the cold season; they should be in pots of medium size, and which are already well filled with their roots. They should be kept in a temperature as near as possible to 45°, and water should be given sparingly.

WORMY BEANS AND PEAS.

Please inform me of the cause of worm-eaten Beans and Peas, when ripe. I can hardly save them (through the winter without being almost destroyed). How can they be saved?

MRS. W. L., *Quincy, Illinois.*

The facts briefly stated in regard to the depredators of Beans and Peas here complained of, are these: The "worms" are the larvæ of two species of insects, the Bean weevil, and the Pea weevil, both of the genus *Bruchus*; the Bean weevil, *B. fabæ*, and the Pea weevil, *B. pisi*. Their habits are similar. The insects are of a rusty black color, about a fifth or a sixth of an inch in length, with a few white dots on the wing covers. They deposit their eggs on the young pods of Peas and Beans, these hatch and the young larvæ bore their way through the pods and into the Pea or Bean, one to each seed usually. Quoting the words of Mr. WILLIAM SAUNDERS, the entomologist, in a report to the Entomological Society of the Province of Ontario: "The larva feeds on the growing Pea and consumes its substance, usually avoiding any injury to the germ, so that infested Peas will generally germinate as readily as those which are free from the bug. The soft, whitish fleshy grub, when full grown, eats a circular hole on one side of the Pea, not quite through to the surface, but leaves the thin skin unbroken. It then changes to a chrysalis, and finally to a beetle within the Pea, and when the beetle is ready to escape it has only to eat its way through the thin skin which the larva had left covering the hole."

In a portion of the Peas and Beans the germ is destroyed, but the greater part of them will grow. To destroy the insect, either in the larval, chrysalid or mature state, would probably make little or no difference with the germinating quality of the seeds, but it would prevent their increase and depredations another season. If this could be done throughout the country, or if no Peas and Beans should be raised for a year, the insects would be stamped out. This, however, is impracticable, and, evidently, "what can't be cured must be endured." The consumer of "green Peas" fails to notice the presence of the "bug," and in the young larval condition it is apparently no detriment. By the time the seed is mature, however, the insect has appropriated a large part of its substance, and as food for cattle it is greatly depreciated in value. The same is true of Beans intended for table use when mature, in fact, they are worthless for this purpose.

We quote again from the same authority mentioned: "Sometimes, especially during an unusually warm season, many of the weevils will escape from the Peas in the fall, but usually they remain in them during the greater part of the winter, and many do not issue until after the Peas are sown as seed in the ground. Hence we see how easily this pest may be introduced into a district hitherto free from it, by sowing infested seed. All seed Peas should be carefully examined, and as the insects diminish the weight of the Peas in which they lodge nearly one-half, an expeditious and moderately safe way of separating the sound from the unsound Peas is to throw them into water, when most of the good Peas will sink while the infested ones will float.

"A very effectual remedy, and one which would be very successful were it generally adopted, is to keep seed Peas in tight vessels in a dry place over one year before planting them, during which time, if any of them contain bugs, these will escape and perish without having opportunity to propagate.

"It has also been recommended to scald the Peas about to be sown by dipping them for a moment or two in hot water before planting, by which means the weevils are killed and the sprouting of the Peas quickened."

By bringing the Peas or Beans into a

warm room in winter and keeping them there a few days, the mature insects will nearly all gnaw their way out of the seeds, and will perish. The insects can also be destroyed in all their stages while in the seeds by the use of bi-sulphide of carbon. Secure a close-jointed barrel or cask with a tight-fitting cover. As soon as the crop is harvested, place the seed in the cask, and on the top of it set a saucer containing about half an ounce of bi-sulphide of carbon, and immediately close the cask tight, and leave it for a few hours. The bi-sulphide is extremely volatile, and in three or four hours will have penetrated every seed and destroyed the larvæ. Bi-sulphide of carbon is very inflammable, and, consequently, care must be used not to bring it near fire. But, for all these measures, we shall still have the insects, which will come in from neighboring sources.

JAMES VICK STRAWBERRY.

This remarkable variety is at the present time specially remarkable for the claims made for it at the time of its introduction, the high hopes that were entertained of it, and the swiftness with which they were disappointed. We have always maintained that it was a variety requiring a method of cultivation somewhat different from that of others, and where the conditions it required were complied with it would produce splendid crops. Several reports to this effect were made last season. In the last number of the *Orchard and Garden*, J. T. LOVETT, the experienced nurseryman and fruit-grower, says: "The James Vick, though profitable only where properly thinned, is a remarkable Strawberry after all, and probably one of the best keepers of all varieties. It is also splendid for canning, being very fine, and retains the natural Strawberry flavor better than most others." A correspondent of the *Western Rural* writes as follows: "In the spring of 1884 I got from JAMES VICK, of Rochester, N. Y., seventy-eight plants of the James Vick Strawberry. Set them out the first day of May, and gave them the best of care, and the October following dug and heeled in fifteen hundred fine plants, and intended setting them last spring. But a writer in the *Rural*, whom I supposed knew it all, said that the Vick was a humbug and perfectly worth-

less. So I did not set a plant of that variety, and by that means shall come out from one hundred to two hundred dollars short next berry season of what I should have had had I known what I do of the true merits of that variety. What few I had last year proved to be everything that could be desired. I believe if properly managed, and the vines are kept properly trimmed, they will yield as much, if not more, than any other variety. But it is not profitable if grown in matted rows, like the Crescent, and if it was a failure with the writer, it was not the fault of the variety."

This variety needs the richest soil, clean cultivation in single hills or stools, and an abundance of water. Water should be supplied artificially if the weather is dry. Strawberry growers who are favorably situated for irrigating can raise enormous crops from it. The English method of Strawberry growing is just adapted to this plant.

THE MUSKMELON.

At the meeting of the Massachusetts Horticultural Society, on the 27th of February, a paper on "Vegetable Culture" was read by W. W. RAWSON. The following are his statements in regard to the Muskmelon:

The Muskmelon does best, other conditions being favorable, on recently turned sod. The best way is to turn the land over at the proper time and apply about five cords of manure per acre, broadcast, using a spreader if you have one. After harrowing thoroughly, mark the ground off six feet apart each way. A shovelful of manure should be applied to each hill, which should be slightly raised so that the water will not stand around the plants. Seven or eight seeds should be put in a hill, so as to make due allowance for insects. After the fourth leaf is well out and the plants have a good start, they should be thinned to three in a hill. Cultivate both ways thoroughly, as you would a crop of Squashes, but never hoe or work around them when the leaves are wet with rain or dew. In picking for market it can easily be told when the ripe fruit is ready, as the under side of the Melons will then be lightly streaked with yellow, and they will be in good eating condition by the time they reach the consumer. They are rather an un-

certain crop, and are cultivated but very little by market gardeners.

The Melons of this class are all yellow fleshed. There are several varieties, but the Arlington Long Yellow is the one raised almost exclusively for market. In shape it is oblong, skin thickly netted, flesh thick and of fine flavor. The Surprise is a variety of quite recent introduction, and of considerable merit for the home garden, but it is not large enough for market. The White Japan is quite a popular sort, of most excellent quality. It is of medium size, with pale yellow skin and of golden-colored flesh.

The culture of Cantelopes is much the same as that of Muskmelons, except that they are usually started under glass and afterwards transplanted, in order to force them along. The Arlington Nutmeg is the leading first early variety, and is followed by the Hackensack, which is one of the most popular sorts for the main crop. It is of good size and excellent quality.

The Casaba is a large, late variety, and in the Northern States requires to be started under glass in order to ripen the fruit before frost. The seed is usually started about the first of May, and the plants set out in the field about the tenth of June. The bed is usually placed near the center of the field where they are to be grown, and the seeds started on sods each nine inches square, so that thirty-two hills are started under each three by six feet sash.

The Montreal Market is the largest Melon of this class, and takes its name from being originated and largely grown in the vicinity of Montreal. It is started under glass earlier than the time mentioned above, and is grown almost entirely in the beds until the time of picking. It has a very thick, green flesh, and is considered the best sort in existence for table use. They often bring as high as one dollar each at wholesale. As they produce more vines than the other varieties, they must have more room. Where one hill is planted under a sash the beds should be set so that the hills will be twelve feet apart the other way; one plant per hill at this distance is sufficient.

In picking for market the fruit is never ripe unless the stem will part readily from it.

CACTI—PURPLE FRINGE—ROSES.

I noticed a few items in the *MAGAZINE* for February, to which I feel disposed to add a little.

First, in regard to the Rat-Tail Cactus, I can subscribe to all that was said in its favor. I have had one in a basket several years, and it appears at all seasons, a handsome drooping plant; but when it puts on its beautiful garments to meet the spring, it is then a delight to our eyes. I find myself stopping before it whenever I pass that way; and not seldom, have I made a pilgrimage to that window, on purpose to gaze upon its beautiful pink blossoms, thereby spending much valuable time, which might—alas! have been occupied in making tidies or worthless rugs, or doing some useless work. At present, February 15th, this Cactus is just beginning to show its buds, tiny pink spots, up and down the “tails.” I do not know how many, but they are numerous and increasing in number daily.

Many other kinds are equally beautiful. The Crab or Lobster Cactus, with its bright scarlet blossoms, and another similar variety, but without the claws, which has been called the “Spider,” and having delicate magenta-colored flowers, are both graceful plants, better, however, for a window bracket than for a basket. I see no reason for the unpopularity of Cacti. Almost all varieties have some beauty of form to recommend them, and when arranged with other plants furnish a pleasing effect. And many of them have such beautiful flowers! Not merely big, showy flowers, which you can only admire at a distance, but you may look long into the heart of one of the rich, delicate blossoms, and its beauty will grow upon you. By-the-by, I have often wished that your artist would “feel it borne in upon him” to depict some of them in their bright colors for the delectation of your readers.

The “Drooping Purple Fringe” mentioned as having made its debut in Europe, also interested me. I hope it will make haste to cross the ocean and take up its abode in America. I shall be anxious to have one, provided it is hardy, etc. The common Purple Fringe is an old-time favorite of mine, for it brings memories of school days, when it filled a pleasant nook of the boarding-school grounds, and its “smoke” entered largely into our amateur decorations.

The white Rose which “C. A. P.” mentions, as having been cultivated by “our grandmothers,” may be the Madame Hardy or Madame Plantier, so far as age is concerned. I do not, of course, know how great antiquity “C. A. P.’s” grandmother can lay claim to, but I have a double white Rose, which was growing in the days of my grandmother, that I think is older than Madame Hardy or Madame Plantier. It grows tall, the new shoots running up, as if in emulation of the Prairie Queen, which stands near it. It is very hardy, very strong, and a very pretty Rose withal. I do not know that it ever had a name. I think it was born before name and titles were bestowed so freely upon Roses. The blossoms are, perhaps, three inches in diameter, flat in shape and moderately full. We have a nearly single Rose. It has two rows of petals surrounding a bright yellow disk. It is a trifle larger than the double, and a beautiful waxy white. I admire it more than I do the other. Both of them take care of themselves mostly, and require none of the coaxing and decorating necessary to the well-being of many new varieties. N.

EDGINGS OF PINKS.

In February number of *VICK’S MAGAZINE* I read with pleasure the article of “S.” on pinks as an edging to flower beds. The writer has anticipated a contemplated article on just that plant for just the same purpose. I will only add my experience to that of “S.” in stating that to my mind, treated as described, it is by far the best live edging we can use. My father’s, as also my first garden, was bordered by dwarf box—beautiful when young, and well kept—but with age requiring twice yearly pruning to keep sufficiently dwarf, and with age I found that the immense mass of roots absorbed far more than a desirable share of nourishment. When I started my second and present garden, I tried blue Grass sodding. This, in early spring, cannot be excelled in beauty, when kept squarely trimmed on each side and mowed regularly; but here with us in the south, when July, August and September’s hottest sun comes, all beauty vanishes, and only a rough, dried, ugly border meets our disheartened eyes. For the past three years I have noticed and admired

my border of Florist Pinks, both pure white and pale rose color. I have them by hundreds of feet following closely just inside of Grass borders, planted exactly as "S." describes them, and find, through winter's cold and summer's drouth, they remain in perfect beauty. In early May they are exquisitely beautiful in flower—filling the whole atmosphere with a spicy fragrance indescribably attractive. Here we call them "Clove Pinks," and no garden seems complete without them. "S." only speaks of the white variety, while I use two, and see no difference whatever in style of growth or hardiness, each growing closely and compactly, forming a thick border, if given the annual shearing spoken of by "S."

MRS. J. S. R. THOMSON, *Spartanburg, S. C.*

MEALY BUG.

Late last summer I arranged a basket of the Ivy Geranium Mrs. George, Saxifraga sarmentosa and Coronilla, and hung it in our east window. Growth soon started and all seemed doing well until December, when the plants, especially the Coronilla, began to look sickly and drooping. On investigation mealy bug was found in great numbers, mostly, however, on the Coronilla. As that is a favorite plant with me, I immediately began to search through the floral literature at home for a remedy. Where such pests come from so suddenly is a mystery to me. These plants have been in a basket all summer suspended from the limb of a Box Elder tree in the yard, and not a mealy bug about the place, and they were in fresh soil and in a window by themselves. Did they come from the soil? It was gathered here and there and mixed nicely and seemed to suit the plants.

Well, I found soft soap suds recommended, so proceeded to administer a dose by plunging, yet felt that a stronger agent was necessary for such badly infested plants. On looking further I found a prescription of a pound or two of soap, one gill of kerosene and one gallon of water, mixed and applied with a syringe. As the soap had already been given, I concluded to use kerosene in its native strength, for these pets were too sick to bear puttering experiments, so putting on my best spectacles, I took a feather and applied kerosene to every joint of Coronilla and Geranium, then brushed both

sides of every leaf of the Saxifrage, then went out of sight of it all, filled with doubts and fears. After an hour or so I plunged the basket and plants several times in quite warm, clear water. Did they die, do you think? Yes, the bugs died, but the plants recovered with the exception of a few leaves of the Saxifrage, which looked scorched and were cut away. At this time (February) the plants are doing well.

ROSINA A. HOLTON, *Smithville, Ill.*

A TRIP TO JAMAICA.

A few words in your valuable MAGAZINE, in regard to Jamaica, as a winter resort for invalids and tourists in general, may, perhaps, interest its readers, and do much to refute a most fabulous and vindictive aspersion, cast on this favored land, namely: "A God-forsaken hole." Jamaica lies about 30 leagues south of Cuba, in 17° 57' north latitude, and 76° 47' west longitude. It is of an oval form, about 144 miles in length, its average breadth about 40 miles, mean range of thermometer 71° to 85° Fahrenheit. A range of lofty mountains runs from east to west, and rises, in some of its most elevated peaks, to a height of more than 7,000 feet above the level of the sea. On the north side of the island the land rises from the shore into hills and swells, which are remarkable for their beauty, being all of a gentle acclivity, and commonly separated from each other by spacious vales and romantic rivulets. In proceeding towards the interior, the land becomes more elevated, and in the center of the island it rises into lofty mountains, whose heads are lost in the clouds. The southern front of the main ridge of the Blue Mountains is generally rough and craggy; there are several lower ridges running parallel with the principal one, the summits of which are more round and smooth, and at the foot of the lowest ridge lie vast plains or savannas, bounded only by the ocean and displaying all the pride and grandeur of the richest cultivation. The island is well watered. There are a great many rivers, which take their rise in the mountains and run commonly with great rapidity to the sea on both sides of the island. None of them are navigable, except for small boats. There are several mineral springs possessing great medicinal properties. The Milk River Baths, are

noted for their beneficial effects, on those who are predisposed to bronchial or pulmonary complaints. The Cinchona plantation is situated on the Blue Mountain at about 6,000 feet elevation. It covers an area of over 500 acres. The climate here is as temperate and genial as the mildest spring or autumn day in England. The plantation is 22 miles from Kingston, the driving road terminates at 13 miles, but the bridle paths thence to the plantation are good, and here the traveler will ascend through a series of ever charming scenes of beauty, displaying a vast contrast to the vegetation of the low-lands, giving individuality to the locality, and reminding one at every step of other lands; here too (*par excellence*), is the region of the Fern flora; Ferns of all descriptions and dimensions, from the tiny Filmies, hardly a quarter of an inch long, to gigantic Tree Ferns with their palm-like heads rising above all surroundings; over 500 different specimens of Ferns have been collected in this and adjoining localities. And, so, the visitor will continue on, until he reaches the plantation, through an ever-varying scene of the most wondrous beauty, that unrolls itself as does a panorama. From this spot is one of the most magnificent views, perhaps, in the island; the Yallahs, like a thread of silver, deep down in the valleys, now lost to view, again appearing, glitters in the sun-light; in the distance is to be seen the city and harbor of Kingston, the plain of Liguanea, and far away the mountains on the borders of St. Elizabeth—truly a picture to be gazed at never to be forgotten. The Castleton, Botanic Gardens, are situated in the interior, 20 miles from Kingston, at an elevation of 580 feet. The road for the last eight miles winds along the left bank of the Wag Water River, which is finely wooded on either side, and winds around the foot of the garden on its way to the sea. This part of the road is not rivalled by any on the island for picturesque scenery. The garden contains a very large collection of plants gathered from all parts of the tropical world. The number and stately grandeur of many of the subjects forms one of the features of greatest interest; and another is one of the best Palmetums in the world, which enables the visitor to realize something of the glorious image enthusiasts have

dreamed, in contemplating these princes of the vegetable kingdom. The minor features include a large tank, displaying the *Nelumbium speciosum*, and other aquatic plants, large specimens of *Amerstia nobilis*, the *Antiaris toxicaris*, the Upas tree of Java, notorious from the fabulous tales told regarding its deadly influence, the *Ficus Indica* or Banyan Fig of India, *Ficus religiosa* or Papul Fig, sacred to the heart of every Hindoo in whatever land he may wander, the magnificent *Juboea spectabilis*, the *Ravenala Madagascariensis*, or Travelers' Tree, and many other subjects of as much interest.

WM. SPECK.

A FERTILIZER FOR POTATOES.

Dr. HOSKINS, whose experience gives special value to his statements, says: We have never grown so large, fair and good a crop of Potatoes, and so cheaply, with any other fertilizer as with a dressing of finely-ground bone and unleached hardwood ashes, prepared by wetting them up together. Our preferred proportions are one bushel of bone mixed on a floor with two bushels of ashes, then packed firmly into a barrel, holes made nearly to the bottom with a hoe-handle, and from two to three pails of water added. Let the mixture stand two or three weeks, then turn out on the floor again and mix in enough more ashes or land-plaster to make it dry enough to apply to the land, which should be done after plowing and before harrowing. Apply about the same value as you would of stable manure to get the crop you want, more to poor land of course. There is no loss in applying this fertilizer freely, as it does not waste, even as much as manure.

CHEATING JACK FROST.

Last summer, being obliged to make two sowings of *Phlox Drummondii*, some of the plants were too late for blooming. As cold weather approached, I transferred a vigorous little plant to a three-inch pot, and set it among the plants in the window. To-day, February 22d, it is a marvel of delicate, beautiful bloom, and promises to remain so, for every branch shows buds or the germ of a truss of flowers. It repays its care a hundred fold, and is all the more prized for having been rescued from the grasp of Jack Frost.

C. S. S., *Feeding Hills, Mass.*

FLOWER CULTURE IN PRISONS.

A writer in the *Lewiston (Maine) Journal*, signing himself "Rambler," thus mentions "Prisoners and their Posies: A sight which impressed me deeply, at the prison, was a murderer watering his plants. Several of the convicts cultivate house plants in old tin cans and crockery, and raise flowers with which they decorate themselves and their cells. They are not permitted to keep the plants in their cells, but are given a few spare moments to attend to them in the shops. They care for them as tenderly as your wife or your mother sees to the health and training of the shoots in the bay window at home—the shoots which you, perhaps, would like to see shot through the window, Mr. Man.

"SAM HAYNES, of Patten, who was sent to prison from Knox County, for killing a man, six years ago, has the best collection of plants. He raises as handsome Geraniums and as fragrant Verbenas as you can find at any florist's. Several of the other prisoners are trying to catch up with SAM. A man who has this love for flowers is not totally depraved."

Prisoners thus allowed to indulge an innocent pastime and an ennobling passion must be less refractory under restraint and necessary discipline. Many needed reforms have crept into prison management in several States of late years, through the action of sympathetic and benevolent persons, to the advantage of all concerned. But we know of no one thing which promises better results than the influence rendered by the culture of flowers within prison walls, each plant the special property and pet of some convict. The love of every flower must tend to harmonize the soul with the good and pure and beautiful in life, and contribute to the rational enjoyment, the lasting benefit and possible reformation of each unfortunate whose perverted passions have so sadly and disastrously misled him from the path of rectitude.

S. H. H.

SPRING AT LOS ANGELES.

From the letter of a correspondent at Long Beach, Los Angeles County, California, dated the 12th of February, we take the following extracts:

This week, which closes to-morrow, the 13th, the thermometer has averaged

at noon, 80°. Almonds in full bloom; Willows have already made six inches of new growth; Bananas put out leaves now three feet long. Volunteer (*i. e.* self-sown,) Tomatoes, Beans, and Squashes are coming up thick and fast; scattered as they are, and coming up where they are not wanted, they become "weeds." The same may be said of Geraniums, Tropæolums, Pansies, Portulaca, Marigolds and Poppies. These we hoe up by the hundreds.

Plants and trees coming here from the east start much quicker than the same sorts that have become acclimated. The Cut-leaf Weeping Birch, Maples, Currants and Gooseberries, and even Apples, are in full leaf, while many Apples grown here still carry their last year's foliage; they lost none till after the first of January.

FOREST PLANTING.

From a paper on the woods of the United States and their destruction, in the February *Century*, Mr. J. E. CHAMBERLIN sums up as follows: "The reasonable conclusion of the whole matter would seem to be that while there is no serious menace to the eastern half of the United States through the loss of forests, there is good reason to urge the preservation of as much of them as possible and the encouragement of new plantations; while in the western half of the country the immediate withdrawal from sale of the whole body of forests belonging to the government is highly desirable. There should be an exhaustive inquiry, at the hands of a competent government commission, into the subject of the extent of forests belonging to the government, their location, value, character, etc., the proportion of private lands now wooded, and the apparent dependence or independence, as the case may be, of all sections of the country upon the modifying effect of forests. Exact information is now needed, which could scarcely be obtained except through the efforts of such a commission.

"Sentimental considerations, I suppose, are to be held secondary to the practical in the matter; but they are powerful, and should be aroused in behalf of no object more readily than the woods, which have occupied so large a place in the sentimental life of man from the earliest times."

THE ROSE OVER THE DOOR.

A cottage, all fitted and furnished,
 Stands daintily over the way,
 And here, a young pair to housekeeping
 Came promptly the first day of May.
 The place seemed to be home-like and cosy,
 The sun shone bright on the floor,
 Yet one dewy eve saw them planting
 A Rose to bloom over the door.

Ah, how they watched over its growing,
 And trained it with tenderest arts,
 And swift, as its bright buds unfolded,
 The love of home grew in their hearts.
 The husband came home in the evening,
 All weary and worn from the store,
 To find the wife's welcome the sweeter
 For Roses that bloomed o'er the door.

But "love," they say, "flies out the window,
 When poverty enters before;"
 But against all trials and troubles
 These two young hearts garnered full store.
 For, when fell the hush of the twilight,
 They whispered anew love's sweet lore,
 Wove closer the bonds of affection,
 'Neath Roses that bloomed o'er the door.

And when the "dark days" closed around them,
 And poverty's waves over-bore,
 To keep the dear home how they struggled,
 Where Roses bloomed over the door.
 And now, all their "trial-time" ended,
 They dwell in the sunlight once more,
 And love brightly gleams on the hearth-stone
 Where Roses bloom over the door,

Ye new mated pairs, who are building
 Your home-nests, now heed, I implore,
 This lesson—that love lingers longest
 Where Roses bloom over the door.
 So, ye, who count home more than shelter,
 Plant, ere the bright spring-time is o'er—
 To make home the brighter and dearer—
 A Rose to bloom over the door.

DART FAIRTHORNE.

SEASONS IN THE GARDEN.

Every plant has some particular time when it is seen in its highest beauty. Often this is the blooming period, and most trees and shrubs which are hardy bloom in the spring. Such tender exotics as are used in the garden, bloom mostly during summer, while autumn is marked almost entirely by the colors of the foliage and the hues of the berries. The seasons thus become most important considerations in gardening.

Objections may be urged against occasional effects may be, but there is no force in this; almost all garden effects are occasional, either in their period of greatest beauty, or they are only occasionally seen. It is the combination of occasional effects which constitutes the chief charm of a garden, and does so where the exquisite and the beautiful are understood.

But different portions may be adapted to the various seasons, and I can conceive that a garden might be very perfect, indeed, if its ornamental grounds were divided into a spring, summer and autumn garden. In the spring massing the hardy shrubs and flowering trees (except the Catalpa, Paulonia, and one or two others) and a very large array of herbaceous plants; these latter should be in masses, sometimes alone, sometimes in combinations; for instance, Tulips, with Allysum, Phlox, Aubretia, etc., so disposing the colors that they will tell, and be a thing to excite admiration.

But accompanying the fleeting effect of the spring blossoms, may be buildings of purest white and brightest brick red, so contrived that they may catch the sun-rays; the waters and the skies should be so managed in the combination that they will enhance, not deaden the vivacity of the spring time.

J. MACPHERSON.

DAHLIA ROOTS.

The following directions by W. M. B., in the *Gardeners' Chronicle*, though late for some localities, will be in time for northern ones in this country, and sawdust as a rooting material will interest many: Place the roots "in gentle heat to start them into growth for propagation. When the roots are about three or four inches long take them off with a little heel, and insert in a thumb-pot or propagating bed. Fresh sawdust is one of the best mediums for striking in I have ever tried. A larger proportion of cuttings strike in this than in sand, and I find them root quicker. If the sawdust comes from green wood be careful the heat does not rise too high. There is no necessity of wasting time in making cuttings, for if they are cut midway between the joints they will root equally as well as if cut at the joints and trimmed, and valuable time will be saved."

A FUNGUS INSECT-DESTROYER.

Prof. ARTHUR, botanist at the New York Experiment Station, discovered, last summer, a fungus that grows upon the Clover-leaf weevil and destroys it in a few hours. It propagates itself rapidly, and there is a prospect that it may be the means of holding in check or exterminating this insect enemy of the Clover plant.

HYACINTHS AFTER BLOOMING.

Please tell me how to treat Hyacinth bulbs so they will bloom the second season. How many seasons should a Hyacinth bulb be expected to bloom? Why do the little bulbs not bloom?

E. T. T., *Colfax, Wash. Ter.*

Hyacinths that have bloomed in the house should not be expected to give fine spikes of flowers a second time. The production of flowers is exhausting to the bulb, especially so when blooming in water or in pots. If turned out into the garden in the spring, after blooming, these bulbs will recuperate, and if allowed to remain there will bloom in short, few-flowered spikes for several years. Bulbs of small size do not bloom for the reason that they have not sufficient strength. They must have a year or two, or more, of growth to become large and strong enough for blooming.

FLORAL GOSSIP.

If you want a most brilliant bed, get a package of Chinese Pink seed. There is no other garden flower that puts on more gorgeous garments. You find them in purple, in scarlet, in red and white, spotted and flaked with black and brown, and some are fringed and edged with white in most fantastic fashion. You will hardly find two plants bearing flowers just alike, each one has its own peculiarities. I find them extremely useful for cut-flower work. A bouquet made up wholly of them is almost as fine as one of Carnations, though one misses the fragrance of the latter flower.

I find that the Chinese Pinks make very good house plants. I always select a few plants in fall, generally choosing such as have not bloomed much during the season, and pot them for winter flowering. I cut the tops off, and keep in a cool window as long as I dare to. Then I bring them into the conservatory and give them the coolest, sunny place I can find. Very soon they begin to bloom, and I can almost always find flowers on them all through the season.

Tobacco tea is recommended as an antidote for the aphid. Many persons use fine-cut or smoking tobacco in making this tea, and complain that it doesn't seem to answer the purpose for which they use it. And they are right, I think, in most instances. I used an infusion of such tobacco for a time, and found it not only quite disagreeable in smell, but it

stained the glass and all light-colored flowers, and did not kill or keep down the aphid. The fact is, manufacturers of tobacco use so many drugs that the aphid-killing element is pretty effectually destroyed. After I began to use tobacco stems procured from cigar-makers, I had nothing to complain of. The infusion from these stems does not stain the glass to any great extent, and can be used more thoroughly than the other in consequence, without making it necessary to clean the windows immediately after making the application of it. A pailful can be prepared, and though kept for days it will not smell as bad as the tea from prepared tobacco will in less than twelve hours after making it. And this tea from stems will drive the aphid away, if you will give your plants a weekly showering with it. Don't wait to find a new crop of aphid after you have once begun war on them, but act on the principle that prevention is better than cure, and use tobacco water to keep them from coming back. *

DAHLIAS.

The varieties of Dahlias represented in colored plate of last month, are as follows:

Miss Browning, a clear yellow tipped with white, a very showy variety. Bird of Passage, white tipped with pink, very handsome and always reliable. Opposite to the last named, and at the upper corner at the left is Mirefield Beauty, a beautiful shade of red, the flowers always perfect in form. At the base at the right is Pioneer, a very dark flower of large size, often spoken of as black, but really a very dark maroon.

THE COMING FRUIT CROP.

The present prospect for a good crop of fruits of nearly all kinds, in this part of the State, is good. Peaches and Grape vines have come through the winter uninjured, and the same is true of all the small fruits. There is still a term of uncertainty and danger to pass, but we are warranted in expecting at least an average yield of most fruits. As the yield of Apples, last year, was large, it may be smaller this season, but we may look for a fair crop.

ACHIMENES.—Will some one kindly tell me how to grow Achimenes?

C. E. P., *Fitchburg, Mass.*

APRIL WORK.

New lawns can be seeded all through this month, but the earlier the better. About four bushels of mixed Lawn Grass seed to the acre is needed, or the same quantity of Kentucky Blue Grass, or from three to four bushels of Red Top, *Agrostis vulgaris*. As a rule, the best results will follow the use of the mixed Lawn Grass seed. Sow the seed when the soil is dry, having the surface freshly raked, mellow and fine, taking advantage of a time when there is no wind, and sowing the seed as evenly as it can be distributed with the hand; afterwards rake in lightly, and then roll the ground. All lawns should now have any bits of rubbish on them removed, and be raked well to remove dead grass and leaves, and be well rolled as soon as the ground has settled after the frost is out. From three to six pounds to the square rod of good superphosphate is a good dressing to give the grass a start.

This is the time in all the northern region to prune Roses, which should always be done while the plants are dormant. If Grape vines were not pruned last month, as they should have been, they should not be longer neglected.

Transplanting of all kinds of hardy plants will occupy much of the gardeners' attention this month. It should not be done when the soil is wet, but only when in a friable condition. Do not slight the work in setting plants of any kind, from Strawberries to Apple trees—see that holes large enough are prepared, and the roots spread out, and then filled in with fine soil all about them which is firmly pressed home, with the hands in the case of small plants, and larger ones, such as trees and shrubs, with the foot.

Get in Peas early, and make successive plantings of them. If the ground should freeze after sowing them no harm will be

done. Sow seed of Celery, Cauliflower, Cabbage and Kohl Rabi in cold-frames or in the open ground in a warm spot. Sow Lettuce, Radish and Onion seed. Do not delay to sow Tomato and Egg Plant seed in cold-frame or gentle hot-bed, if it has not already been done.

The flea beetle that eats the leaves of the Radish and young Cabbage and Cauliflower plants must be kept in check by frequent syringing with water, or by sprinkling ashes, soot, or air-slaked lime over the plants.

Delay planting Beans, Corn and Melons until the ground is warm and there is no longer fear of frost. Sow Sweet Peas, and start seeds of annuals of all those kinds that can be transplanted to advantage. The cold-frame will be found of great service this month and the next, but it will need watching closely or the bright sun may spoil in an hour the work of days. Give air when the sun shines, and keep the temperature down as near 60° or 65° as possible.

ORCHIDS.

EDWARD L. BEACH, of Boston, in a paper read before the Massachusetts Horticultural Society, March 6th, makes the statement that "In New York city Orchid flowers had become so popular that the few who grow them find it difficult to meet the demand. A year ago they were not in such request; and though the demand seems to be confined to New York, the rage for them, as they become better known and the supply increases, is likely to spread."

A World's Fair in 1890 is now the dream of New York. Will it become a reality?

Robins were reported in this locality the 12th of March.



OUR YOUNG PEOPLE.

THE HOUSEHOLD GOBLIN.

Charlie Carlton, five years old, came tearing down stairs one evening, crying as he came, as though something were at his very heels, much to the amazement of the family sitting around the glowing grate, for he had just been put snugly to bed. All rushed hastily toward him, but his mother's arms first received him, and trembling and sobbing, he hid his face on her breast. Being a fragile boy, nervous and imaginative, he had been carefully guarded against alarms and excitements, and now what could have happened?

"Tell me all about it," soothingly whispered Mrs. Carlton, with her arms close about him, when again they were all seated. "What frightened you, Charlie?"

But Charlie, quite ashamed of such an exhibition of tears before "Uncle Dave," the new-comer, was getting his sobs under control. When he did, his abused feelings found expression first to his brother: "Jim, why didn't you come to bed sooner? You needn't sit up all night." "Just listen!" laughed Jim, while Mrs. Carlton told Charlie to never mind, but to tell her now what had happened. So he began:

"It was something under the bed scratchin' around, an' I thought I heard it growl a little; an' I was afraid it was that thing—that mortgage or something that papa told you before supper would eat us all up yet, he was afraid."

There! the secret was out.

All disposition to laugh was repelled by the *real* goblin in Charlie's confession, —a goblin that had haunted his father's bed for weary years, driving away sleep, —had followed him mornings to the fields,—had gone with him to town and returning had taunted him with his purchases,—had attended him to festivals, funerals, church, everywhere. No wonder there were early lines of care and age on his face! And the mother—had she been spared? No, indeed. One and inseparable are the interests and cares of loving parents; and these, because they had sacrificed and suffered, thought to keep

sunny the hearts of their children by withholding the knowledge of the burdens they carried;—often saying to each other, care and trouble will come to them soon enough.

So here sat Jim and his sister Helen still older, half-dazed by the new revelation, while Uncle Dave—their mother's uncle—wished himself where family secrets could not be thrust upon him to his embarrassment. So, for a few moments dumb silence reigned. Then suddenly at the stairway-door, where Charlie had just descended they heard: "*Meoww!*"

"O, ho!" said Jim, hurrying to open the door, glad of anything to break the silence. "And so it was kitty under your bed, Charlie! P-o-o-r kitty, couldn't you stretch yourself after a nap and test the condition of your claws for a night's prowling without scaring a little boy half to death?"

"I'm not afraid of cats," said Charlie, "it's that other thing; for you know, papa, you said—" but Mrs. Carlton cut short his remarks by leading him from the room, after which his fears were soon dispelled by the assuring logic which mothers have at command; and shortly after, the nervous, sensitive child—the bright, affectionate, winning boy—was sleeping the sleep of happy childhood.

Meanwhile, in the other room, Mr. Carlton frankly explained to Uncle Dave that under the pressure of taxes, insurance and interest, all coming due nearly at one time, he had this season felt the latter an especial burden. Years before he had been disabled from work for a long period by an injury, and that was followed by increased family expenses and successive seasons of ill luck, so that the principal of his indebtedness could be but slowly reduced without doing injustice to his family. He didn't propose, he said, to see his wife killed by positive over-work, nor his children deprived of privileges to fit them for future usefulness.

A sudden flood of recollection caused

Helen at this moment to retire to her own room where she finally cried herself to sleep. Jim soon left his father and Uncle Dave to their midnight talk—it seemed likely to be—and carried Charlie up stairs where he himself passed some wakeful hours. Upon rising next morning he felt as though there had been, sure enough, some dreadful thing under his bed all night just ready to eat them all up. He immediately sought Helen and inquired what she thought now of the situation.

"Think!" she cried, "I think if anything were to go wrong with father now that Mr. Grabit would gobble this place right up and throw us out of a home! That's the way he did with the Stantons,—didn't want them to pay any principle—oh, no, was *so* satisfied as long as the interest was paid up promptly;—at the same time deliberately watching his chance, and then suddenly foreclosed the mortgage and had a forced sale and bid that farm in himself at half its value."

"How do you know, Helen, that Mr. Grabit is the man in this case?"

"O, I know; I've thought it all out. He and father have always had some invisible business between them, and it's been nothing else—you may be sure. I don't intend to buy another ribbon nor anything but calico for dresses till that mortgage is paid off. That old Grip-tight shan't have this place! Poor father! how he has worked and managed all these years to give us 'a chance;' and yet you and I, Jim, haven't half appreciated it because we didn't understand. But I shall just glory now in any sacrifice I can make to help him. What do you say?"

"I'll not yield to you in point of will nor grit; but do you want me to give up school? You have the advantage of me there."

"I've thought of that. I'd like you to give up one year now and make it up later on. Right now is the time to put in our oars."

At breakfast Mr. Carlton asked Uncle Dave to give Helen and James the benefit of their last night's talk. So he quietly proceeded to tell them that their father had concluded that he had been trying to cultivate too much land; that he had decided to condense crops, to condense fertilization, to hire less labor, to sell off some horses and twenty acres of land and

to buy two more Jersey cows. If the land don't sell at once it is to be rented out.

"What do you mean by condensing crops?" inquired Jim.

"I'll give you an instance. Near my father's place in England lived a man who had on about an acre and a half of land 1050 hills of Hop-vines eight feet apart each way. From these hills he raised annually a crop of Hops. Between the rows in one direction were Sage plants, and between them the other way were two or more rows of Onions (or sometimes sugar Beets or Cabbages.) The Onions, however, were out of the way in time for the Hop-harvest early in September, after which, Turnip seed was broadly sown. His Berkshires, and his Alderney and Jersey cows, well-managed, helped him to fertilizers, and he eked out a good living, with something to lay by. I know an English woman in this country who regularly fills her quarter-acre patch with rows of Potatoes planted thick in furrows, and in those same rows raises luscious 'ever-green' Corn for market; while choice winter Squash and Pumpkin vines decorate the margins of the ground. A neighbor, with his horse, does the first and second plowing, and she does the rest of the work with a hoe morning and evenings, thus avoiding the heat of the sun."

"I have your idea now," said Jim, "about crowding crops. It is done by so enriching the soil as to compel their growth without robbing each other. I like the idea, and like father's suggestion (or yours) of changes."

"So do I," interposed Helen, "and Jim and I have plans too. I am going to turn my energies and my wits to poultry raising in addition to some other matters; and, if we're to have more Jerseys, to butter-making also!"

"And I," added Jim, "am going to drop school for one year and see what I can do toward saving the wages and board of one man."

"That will not be necessary," said Mrs. Carlton, "if Mr. Grabit buys the land. He is always so anxious to add to his acres, and this being adjoining, he will be sure to purchase."

"Not at all sure," quickly rejoined Helen. "If the land is offered to him he'll think at once that father is very hard pushed and will decline to buy it hoping

before long to have a chance to bid it off at some low valuation at a sheriff's sale which he can get up on short notice."

"Daughter!" interposed Mr. Carlton, "you don't know what you're saying. Please be quiet."

"I've been quiet a long time, father—ever since Julia Stanton told me how that man had lain in wait for their farm. Always smooth-tongued and smiling, he could persuade Mr. Stanton into money ventures on fine stock, etc., to his loss, but always escaped losses himself. Then when their trouble came he foreclosed the mortgage without an hour's warning, after having declined, time and again, to receive small sums on the principal."

"I must confess," remarked Mr. Carlton, "that he has made it very easy for me to be in debt to him—too easy."

Just as predicted, Mr. Grabit "could not think of buying land just then," but urged Mr. Carlton to "keep it by all means—by all means to keep it;—so nice a farm must not be curtailed of

its fair proportions." So the fields were rented.

Uncle Dave's home was broken up by the death of his wife, so he staid on several months, and was of such assistance in every way that all had reason to thank Charlie for the imaginary boog-a-boo under his bed on that memorable night.

At the end of a year it was found that the excellent returns for the labors of the family, added to the reduction of the usual expenses, amounted to a sum that evidently disturbed Mr. Grabit when obliged to indorse it on the mortgage-note. The result was that next day he declared himself then ready to purchase the twenty acres! Thus the debt was happily liquidated and a small surplus left in hand. So light hearted and happy were they all then that it makes one wonder if other boys and girls in mortgaged homes cannot help to frighten away the goblin—Debt.

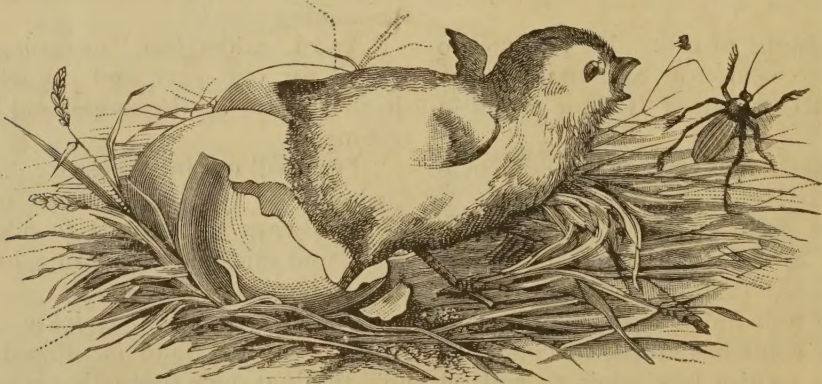
MARIA BARRETT BUTLER.

"YOU'RE NOTHING BUT AN EGG."

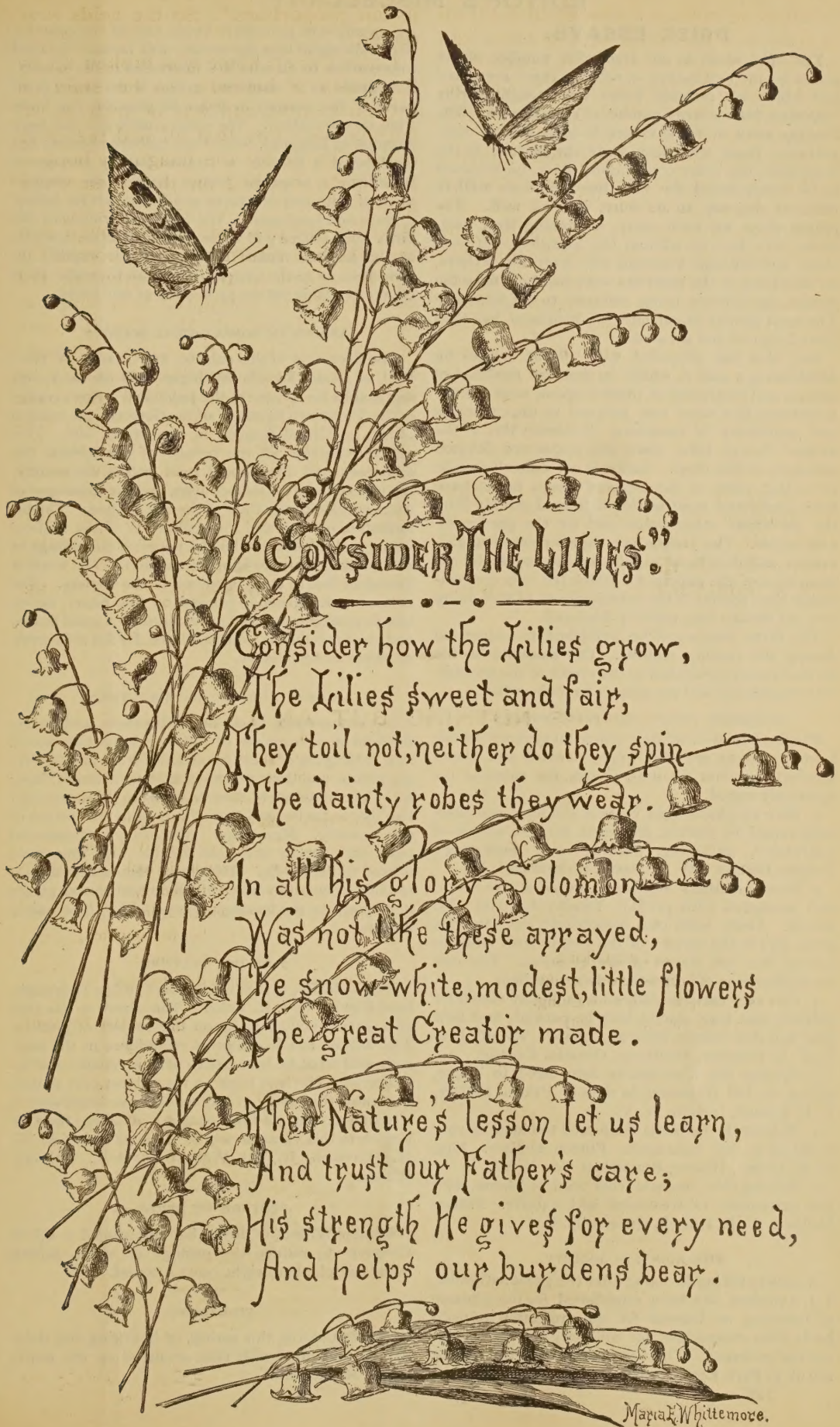
A beetle once strolled near a nest—
The hen had left it for a minute—
And, having nothing else to do,
He softly climbed up and looked in it.
And there he spied a snow-white egg,
And, said he, "There is no denying
That you are pretty, but you have
No wings and never can go flying,
Nor have you legs (now I have six,
Yes, six as sure as I am talking,
As well as four most lovely wings),
And so you never can go walking.
I'm sorry for you, for you will

In time feel lonely and forsaken.
You're nothing but an egg"—"I think,"
A wee voice piped, "You are mistaken."
And right before the beetle stood
A chick, its black eyes brightly shining,
And, oh! how hungry it did look,
As, toward its visitor inclining,
Its beak it opened wide. Adown
That nest and off the boaster scurried,
And only saved his life because
With haste undignified he hurried.

MARGARET EYTINGE.



"I THINK YOU ARE MISTAKEN."



EDITOR'S MISCELLANY.

PRIZE ESSAYS.

The offer made in our December number, of six prizes for the best essays on subjects there presented and which are restated below, has brought worthy responses from a large number of contributors. The average merit of these essays is high, and we congratulate those who bear away the prizes; at the same time, the other contributors have no occasion to be disappointed, for they have all done well, in different degrees, to be sure, but all well. The judges, three for each essay, in making their decisions, have done so without the knowledge of each other, and without knowing who were the writers, as the names of the essayists were withheld from the judges, the articles being referred to by numbers. The most perfect impartiality of judgment has thus been designed and secured.

One idea has prevailed with all the judges on questions 4, 5 and 6, which is, that the methods of culture and treatment of those subjects most worthy were those that were best adapted to the capacities and conditions of amateurs. Evidently this is the proper view to take, since our pages are devoted primarily to this class. And it is not difficult to conceive that some of the rejected essays might have been considered most worthy if judged strictly from the gardeners' stand-point, and for the gardeners' instruction. The judges are superior practical gardeners, and they have in all cases given careful examination of the papers, for which the only compensation they receive is the consciousness of well-doing and our thanks here publicly rendered.

The prize essays will be published in succession during the coming months. The amounts of the several prizes now stand to the credit of the successful competitors, and are subject to their orders.

SUBJECTS, PRIZES AND PRIZE-TAKERS.

For the best well written article on each of the following subjects, we offer to pay in seeds and plants selected from our FLORAL GUIDE, the sums as respectively stated.

1. How can Asparagus be best and most economically raised for market, and what are the details of cultivation, gathering, packing and marketing? Twenty Dollars. W. C. Steele, Switzerland, Fla.
2. How can Musk Melons be raised at the north, and marketed with profit? Twenty Dollars. No award. There were two competitors only for this prize, and in the opinion of the judges both failed to answer the last clause of the question. The cultural directions of both essays were excellent.
3. Can very early Radishes be profitably raised for market, and how should they be packed, and how long will they remain fresh and crisp? Twenty Dollars. B. Fletcher, Strathroy, Ontario, Canada.
4. Raising the Calceolaria from seed to bloom, giving its full treatment in detail. Fifteen Dollars. C. E. Parnell, Queens, N. Y.
5. Raising the Gloxinia from seed to bloom, giving in detail its full treatment. Fifteen Dollars. Mrs. H. R. Luney, Hoosic, Rensselaer Co., N. Y.
6. Raising the Cineraria from seed to bloom, with full particulars of treatment and culture. Fifteen Dollars. C. E. Parnell, Queens, N. Y.

THE AUDUBON SOCIETY.

A society taking its name after the great naturalist, J. J. Audubon, has been established for the purpose of fostering an interest for the protection of wild birds from destruction for millinery and other commercial purposes. The headquarters of the society are at 40 Park Row, New York City. It invites the

co-operation of persons in every part of the country. We understand that the society will furnish detailed information to all who are interested in the subject. It appears as if combined action is necessary in all parts of the country in order to preserve the birds from extermination. The same course has just been adopted in England, where the Selborne Society has established a branch or section for the purpose of instituting a practical protest against the employment of feathered creatures as adornments for ladies' dresses and head-gear. We hope the friends of the birds everywhere will write to the Audubon Society, at the address named above, and get explicit instructions as to the course to pursue to make their efforts available for the protection of our birds.

AMERICAN POMOLOGICAL SOCIETY.

The Secretary of this society, Mr. Charles W. Garfield, of Grand Rapids, Michigan, will please accept our thanks for a copy of the published "Proceedings of the Twentieth Session" of the Society—the session of 1885, at Grand Rapids, in September last. This volume contains all the reports of committees, the addresses and the papers read before the society, the proceedings at the meetings, and the catalogue of fruits revised to the time of the last session. The information on fruit and fruit culture is of the highest value, and it would be to the personal advantage of every fruit-grower to have access to it. The work is furnished free to every member of the society. The volume is handsomely printed on fine paper, excellent in arrangement, and provided with a good index, and the Secretary is congratulated for his able work as editor and publisher.

A GREAT NURSERY ESTABLISHMENT.

Our enterprising neighbors, Ellwanger and Barry, the famous nurserymen of this city, have just issued new catalogues of their ornamental trees and flowering plants, and their great stock of fruit trees, vines, &c. The richness of variety found in these descriptive lists is far beyond that of any other collection in this country. Many new varieties of ornamental trees and shrubs are now for the first time here offered to the public. They have also added largely to their stock and variety of hardy herbaceous plants in response to the increasing demand for these hardy flowers.

POULTRY CULTURE.

How to Raise, Manage, Mate and Judge Thoroughbred Fowls; by I. K. Felch. The above is the title of a very practical book on the subject of poultry. The author has had a great experience in the business, and what he here has to offer is reliable and instructive. The best book on the subject ever issued. We know that many of our readers are interested in this subject, and we take pleasure in calling their attention to this valuable work. It is published by W. H. Harrison, Jr., 315 Wabash Avenue, Chicago, Illinois.

POSTAGE ON SEEDS.

Senator Wilson, of Iowa, has introduced a bill in Congress to reduce the postage on seeds, scions, bulbs and plants to eight cents a pound.

LIGHTNING.

The first storm, this spring, of lightning and thunder, accompanied with rain, occurred on the morning of March 20th.